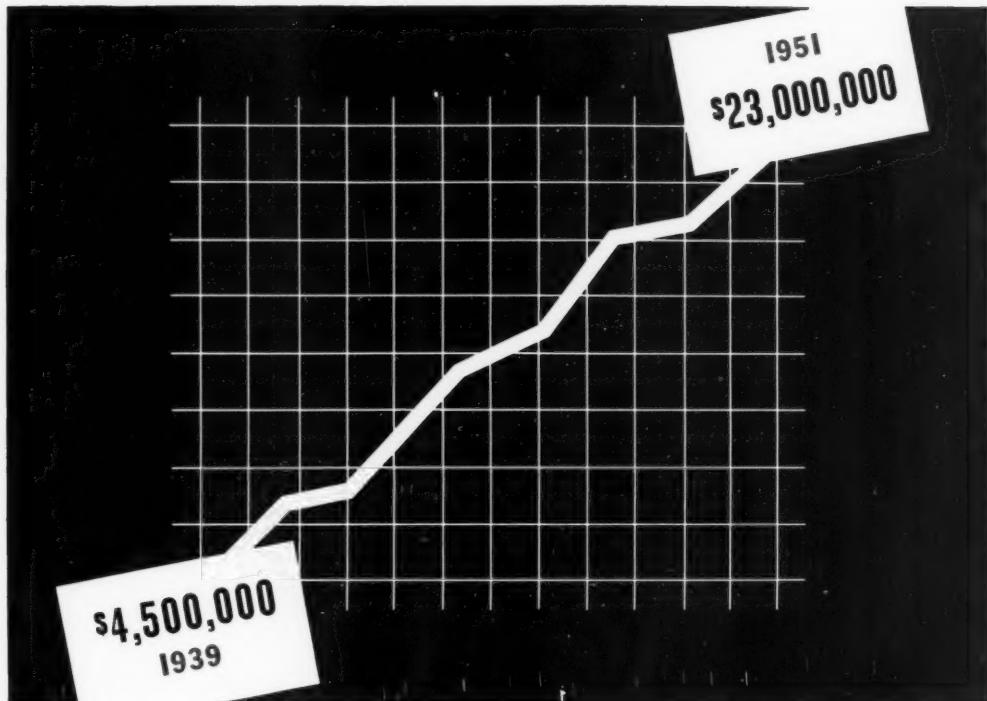


Modern packaging



Nominated for *Packaging's Hall of Fame*. Story on Page 108

May 1952



Our story of progress indicates the result of industry's acceptance of the quality of our service and products.

Naturally, we have expanded our manufacturing facilities and enlarged our research, development and service staffs to meet industries' ever-changing requirements.

We'll be happy to send you a copy of our folder, "A STORY OF GROWTH." It will give you a better understanding of our products and services.

STARCHES



ADHESIVES

NATIONAL STARCH PRODUCTS INC.

Our Story!



C.R.S. INC.

Executive Offices: 270 Madison Ave., New York 16, N. Y. • **Plants:** Dunellen, N. J., Chicago, Indianapolis, San Francisco • **Sales Offices:** All principal cities • **Canada:** Toronto and Montreal.

PLASTAFOL

NEW TRANSPARENT PACKAGING BY **GAIR**

This new GAIR PLASTAFOL packaging which is a combination of Rigid Plastic with GAIR famous CARTONS is an outstanding achievement in the folding carton industry.

GAIR PLASTAFOL combination carton is definitely a SELL-ON-SIGHT package with a large area for product visibility. The ingenious transparent panels are so sturdy and rigid that it will not crinkle or break even when the cartons are used for mass displays on the counter, shelf or windows. PLASTAFOL is a sales-promotion masterpiece.



ROBERT GAIR COMPANY, INC. 155 EAST 44th STREET, NEW YORK • TORONTO
PAPERBOARD • FOLDING CARTONS • SHIPPING CONTAINERS
MAY 1952

Modern packaging

Vol. 25

No. 9

May 1952

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**Is your operation
HIGHLY
SPECIALIZED?**

**REDINGTON Type 26K
CARTONING MACHINE for
Long Cut Macaroni Products**



AUTOMATIC LOADING..ADJUSTABLE..HIGHER SPEEDS THAN EVER BEFORE

The 26K was developed specifically to package a variety of long-cut macaroni products such as perciatelli, spaghetti, spaghettini, and other shapes.

The product is weighed to the proper quantity and placed in the conveyor pockets by operators. The REDINGTON then feeds an end-opening carton from magazine and automatically loads the product. Ends are securely double-glued (with end-flap squared) in the usual REDINGTON improved manner. Many machines are provided with adjustable features to handle several sizes of cartons. Some models operate at 80 per minute and others at 120.

When inner wrapper is required, mechanism is supplied to line conveyor pockets. Wrapping is automatic. Machines so equipped are not adjustable.

**YOU CAN PACKAGE FASTER-BETTER-AT LOWER COST-
WITH REDINGTON AUTOMATIC MACHINES..**

Perhaps a delicate product or an unusual package shape makes *your* packaging problem *special*. Or perhaps you simply carton a standard tube or bottle. Either way, it will pay you to learn why REDINGTON Machines package everything from penpoints to peroxide in the country's best-producing plants. Let us put REDINGTON'S ingenuity, practical engineering and half a century of success in every packaging field to work for you, to develop faster, more efficient packaging that cuts labor and maintenance cost-per-package. Send us samples of your packages today, with a note about your present methods. Our New York Office is convenient for service to Eastern packagers.

F.B.

- since 1897 -

REDINGTON
CO. 110-112 So. Sangamon St., Chicago 7, Ill.

**AUTOMATIC MACHINES
for
CARTONING
WRAPPING
SPECIAL PACKAGING**

Modern packaging

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EDITORIAL

Never underestimate

HOW BIG is packaging?

That's a question that people ask us about as frequently as any other, and we can only begin to answer by asking back: "What do you mean by 'packaging'?" It isn't easy to draw the boundaries of a field that stretches fingers into so much neighboring territory.

We do know that a brave soul in the Department of Commerce back in 1947 did some cogitating and came up with the nice, round figure of \$7 billion a year as covering all of the materials, equipment and services of packaging. If packaging could be considered as a separate industry (which it isn't) that would make it just about the biggest industry in the country—bigger than steel or automobile manufacture. And if we accept that \$7-billion figure as valid for 1947, then we think it's safe to say that price inflation and expanded production have pushed it to \$10 billion by now—not counting the \$3 billion which represents packaging's share of the \$50-billion defense expenditure this year.

We are indebted to Howard F. Lochrie, manager of advertising and sales promotion for the Birds Eye Division of General Foods, for some estimates on the *numbers* of packages now being consumed yearly. Speaking before the National Packaging Conference in Atlantic City last month, he started with the known figure of 34 billion tin cans produced in 1950 (containing, among other things, 25% of the dollar value of foods at retail) and progressed from that to a grand estimate of 255^{1/4} billion packages as the present annual requirement for the marketing of products of all types—a figure so big, as Mr. Lochrie pointed out, that it has the rare distinction of almost exactly matching the dollar figure of our national debt.

Never underestimate, suggests Mr. Lochrie, the power of a housewife nor of the 1,696 packages which she now consumes yearly.

"The package," concludes Mr. Lochrie, "is the arbiter of a product's fortune. No one who markets salable goods could get very far without the packaging industry."

The Editors



Betner's service is complete from idea to finished bag. Let Betner recommend the proper machinery for closing bags and inserting liner bags in cartons.

BENJ C BETNER CO

Devon, Pa.

PLANTS ALSO LOCATED IN:

- RICHMOND, VIRGINIA
- PARIS, TEXAS
- APPLETON, WISCONSIN
- LOS ANGELES, CALIFORNIA

NEW! PATAPAR 27-21T

light in weight high in grease-resistance

PATAPAR 27-21 T
A light weight type of
Patapar Vegetable Parchment
with *high* grease-resistance
Base Weight 27 Lb. (24 x 36 - 500)
ton Parchment Paper Company
k
BRISTOL, PENNSYLVANIA
SAN FRANCISCO
Chicago

Patapar 27-21T is a new type of Patapar Vegetable Parchment that is light in weight (27-lb) and – in addition to wet-strength – *extremely grease-resistant*. In actual commercial use, Patapar 27-21T has shown greater resistance to grease and oil penetration than conventional grease-resisting papers of much heavier weight. It offers improved packaging at lower cost.

← NO GREASE "crawl"

This test will prove it. Place 5 drops of oil on a sheet of Patapar 27-21T. The drops will not increase in size. They do not spread or "crawl." On a conventional grease-resisting paper the oil drops will crawl and spread noticeably. Patapar 27-21T stops grease "crawl" completely.

Many important uses

As a wrapper for lard, shortening or margarine Patapar 27-21T gives excellent protection. It stays clean – looks appetizing. And it is economical. Because it resists grease staining, Patapar 27-21T is used also as a package insert for coffee, nuts and other oil bearing products. It is ideal as a protective wrapper for oiled metal parts and leather goods. These are just a few of its many applications.



Send for samples

For samples of Patapar 27-21T and more information, write us today. Tell us the use you may have in mind.

**News about
B. F. Goodrich Chemical Company raw materials**



B. F. Goodrich Chemical Company does not make these finished products. We supply only the Geon latices.

for cars, shelves, and unbeatable drums!

New developments in the use of versatile Geon latices

THESE are a few of the things manufacturers are doing with coatings of Geon latices on paper, textiles, fiberboard and other materials to create new, saleable products.

Decorative wrapping paper coated with Geon latex has a glossy surface, attractive yet tough. Non-woven fabric impregnated with Geon latex is washable, resists grease and oil and is made strong enough to polish a car. Interior and exterior Geon coatings for fiber drums give them longer life, washability as well as protecting the walls from greasy or corrosive contents.

Boxes for baked goods and similar

"greasy" foods are coated with Geon latex to provide grease and moisture resistance.

Geon latices are easy, safe and economical to use. Being water dispersions of vinyl resins, there are no solvent problems—no fire hazards or costly recovery systems—in processing.

Such is the versatility of the Geon family of latices that many new uses can be expected as more manufacturers become acquainted with them. Each Geon latex in the family is specially designed for certain types of applications.

Our technical service is ready to help you select the Geon latex best suited for

your use. Write for the Geon Latex Chart, and for the new booklet, "Packaging Problems Solved With Geon". Please address Dept. GL-5, B. F. Goodrich Chemical Company, Rose Building, Cleveland 15, O. In Canada: Kitchener, Ontario. Cable address: Goodchemco.



GEON RESINS • GOOD-RITE PLASTICIZERS...the ideal team to make products easier, better and more saleable.

GEON polyvinyl materials • HYCAR American rubber • GOOD-RITE chemicals and plasticizers • HARMON organic colors



MOORE & MUNGER

33 Rector Street New York 6

EXPERIENCE and SERVICE

Shipping several thousand tank cars of wax yearly gives us the experience necessary to provide our customers with the best possible service.



Proving grounds for future products

PERFORMANCE that must count adds up to BAKELITE Polyethylene! Right now that means tough, grueling service for defense and military application . . . extremely short supplies for civilian use. As military materiel, this useful material, in molded, extruded and film form, is proving its versatility in dozens of ways . . . demonstrating its flexibility, strength, lightness, water and chemical resistance, and excellent electrical properties.

This is the remarkable range of properties that makes BAKELITE Polyethylene the plastic material to keep in mind in planning future products. The same qualities that make it an indispensable military materiel plus its wide range of color, have an important place in packaging, as a coating for cloth or paper, as film, or as flexible containers. Why not find out more about its possibilities? Write to Bakelite Company today for detailed information, and up-to-the-minute news about availability for experimental purposes.



LOW ELECTRICAL LOSS of tough, weather resistant BAKELITE Polyethylene insulation makes it the top choice for field wire. It minimizes power drain . . . promotes efficient communication.



LIGHTWEIGHT, UNBREAKABLE bottles made of BAKELITE Polyethylene reduce shipping weight. Highly chemical resistant, they are efficient containers for acids and other corrosive materials.



EXTREME TOUGHNESS of BAKELITE Polyethylene is put to work as a case with molded-to-fit compartments for industrial taps and dies. Lighter, smaller than conventional cases, it resists abrasion, moisture, oil, grease and most chemicals.



THERMOPLASTIC PROPERTIES of BAKELITE Polyethylene make possible more mobile fire power. As the powder sack inside the shell, the film melts under heat of detonation, permits gases to escape through holes in casing . . . resulting in recoil-less artillery.

BAKELITE
TRADE MARK
POLYETHYLENE



BAKELITE COMPANY

A Division of

Union Carbide and Carbon Corporation
30 East 42nd Street, New York 17, N.Y.

"Looked so delicious, I couldn't resist it..."



Each night at dinner, families all over the country enjoy flavorful treats prepared with canned food products that stimulate eager appetites.

That good things come in cans is strikingly demonstrated by the confidence of American housewives who each year select more than 22 billion units from their grocers' shelves.

Sharing the responsibility for this tremendous volume are the colorful labels which supply both the impulse for original purchase and recognition for repeat sales.

You will find the crisp clean reproduction assured by Oxford quality papers often the difference between a label that "sells" and one that does not.

Your Oxford Merchant will be happy to help you select the right Oxford grade for your labels, pamphlets, recipefolders, wraps and other promotional material to help build your sales.

XFORD PAPERS Help Build Sales



OXFORD PAPER COMPANY
230 Park Avenue, New York 17, N. Y.

Mills at Rumford, Maine, and West Carrollton, Ohio

OXFORD MIAMI PAPER COMPANY
35 East Wacker Drive, Chicago 1, Ill.

MODERN PACKAGING

Tri-State Rigid Plastic Box



brightens **Breyers** slow-season sales

Quite naturally, ice cream sells best in summer. But Breyer Ice Cream Company felt that something could be done to iron out the slower season's sales "valley."

Then they found that our stock box No. C-79 was an ideal container for Breyers half-gallon bulk pack. The glistening, transparent rigid plastic had sales appeal. The insulation quality and practically air-tight seal kept the ice cream in perfect condition, even when removed from the freezer for serving. And women liked the bonus value of the box for innumerable uses in home freezers and refrigerators.

This winter, Breyers presented our Frigid-Box at a modest tie-in price with their half gallon freezer package. Ice cream sales increased. The cold weather ice cream jinx was chased, and because of the consumer appeal of the "premium", its cost to Breyers was liquidated.



OUR STOCK BOX NO. C-79 (5 $\frac{1}{2}$ " x 7 $\frac{1}{2}$ " x 3 $\frac{3}{4}$ ") provides Breyers with a perfect premium package for stimulating ice cream sales. Whether you package dairy products, foods, tobacco, confections—class or mass merchandise of any kind—there's a Tri-State Rigid Plastic Box to fit your product, build your sales, simplify your packaging operations. If we cannot fill your needs from our wide variety of stock sizes and shapes, we'll mold to your specifications.

The Best Rigid Plastic Boxes are Injection Molded by



TRI-STATE PLASTIC MOLDING CO., Inc.

HENDERSON 6, KENTUCKY

NEW YORK: 12 E. 41st St., Murray Hill 3-6572 CHICAGO: 176 W. Adams St., Franklin 2-7292

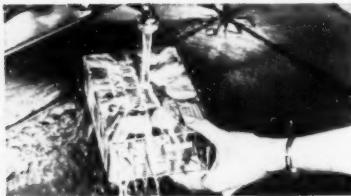
Conquering the Atmosphere...for stratospheric sales!

That may sound like the latest space-man comic strip. But it is a fact that Southern Biscuit Company is scoring new sales-altitude records because Reynolds "crosses the atmosphere" ...atmospheric moisture. The secret is Reyscal, Reynolds' exclusive heat-sealing lamination of aluminum foil, wax and paper.

Southern Biscuit Company had always been a quality house. But the old-style package could not maintain quality for long-distance shipping. Reyscal, used first for FFV Lemon Thins and Orange Thins, kept the quality oven-fresh indefinitely. In addition, the eye-appeal of these brilliant packages cut shelf time to a minimum. It was a double-action guarantee of freshness! Distribution rapidly became national.

Now Southern Biscuit has ten items heat-sealed in Reyscal... "shining armor that gives up to five times more fresh-flavor protection." Every package carries the all-important notice: "Aluminum Foil Heat-Sealed Protects Flavor and Crispness."

More and more success stories like this start by a call for Reynolds packaging experts. Phone, write or wire. Reynolds Metals Company, General Sales Office, Louisville 1, Kentucky.



Southern Biscuit advertising features the "dunking test"...holding a package of FFV Cookies under water. Another dramatic "test" took place in Alabama...a fire caused water damage to all of a grocer's stock except his FFV Cookies. He simply wiped off these packages, and they were as good as new!



Return Flight
Guaranteed!



Pioneers of
Progress in
Aluminum
Foil
Packaging

REYNOLDS ALUMINUM

Tune in every week... "The Kate Smith Evening Hour" on Television—NBC NETWORK



*making things
Crystal clear!*

Crystal cellophane dresses up candy canes for Xmas sales gains

These Crystal cellophane tubes give your product an allure that people just can't resist during the heavy Xmas impulse-buying period. The sparkling clear, "eye and buy appeal" that surrounds your candy canes assures your product a "front row center" position during the big-volume holiday season.

These cellophane tubes may be had in these beautifully printed stock designs with your name and ingredients, or they may be had in plain, unprinted form, or with special designs. Available in all the popular sizes. Be sure to write for full information about these handsome cellophane items in the broad Crystal line of quality products. Why not call or write today?

CRYSTAL TUBE CORPORATION 6625 W. DIVERSEY AVE., CHICAGO 35, ILL.

Phone NAtional 2-4600

Branch Offices in New York, Philadelphia, St. Louis, Minneapolis, Detroit, Louisville, Milwaukee, Dallas and Los Angeles.

Cellophane Tubes, Pouches, Bags and Envelopes—Polyethylene Bags—plain and printed. Also printed roll stock and sheets in Cellophane, Polyethylene, Pliofilm, Acetate and Foil . . . Utility Rolls, Holiday Bands and FLEXIBLE BARRIER MATERIALS

T. M. Reg.





More Protection

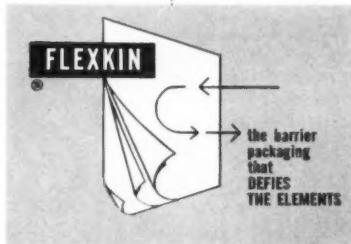
...in delivering your product to the nation's far-flung fighting forces... be it rations, spare parts, electronic equipment or larger engine assemblies.

More Protection

for Military Packaging

FLEXKIN®

Flexible, moisture-vapor barrier meets Army, Navy and Air Force specifications.



Samples and technical brochure on request.

ACME BACKING CORP.

Brooklyn 6, New York

3 Times Longer Protection

WITH

Kard-O-Pak

Heat Sealable
PLASTIC
INTER-LINER

(Polyethylene, Pliofilm, etc.)

KEEPS OUT
AIR-MOISTURE
ODORS

Locks-in Flavored Aroma

Odorless, tasteless innerbag is impervious to transfer of odors in or out of the package and, when heat sealed, provides a strong welded, hermetically tight enclosure.

THE MODERN
FLEXIBLE CONTAINER



SELF
OPENING
FLAT
BOTTOM

Stands firm and
upright for use on
**AUTOMATIC
FILLING
EQUIPMENT**

Also Available
**A COMPLETE LINE
OF FLEXIBLE CONTAINERS**

★ American is one of the quality producers in the paper bag industry, and offers a complete service from creative design to precision multi-color printing. Your inquiry is invited.

Kard-O-Pak

THE FLEXIBLE CONTAINER THAT GIVES
PROTECTION 3 TIMES LONGER!



AMERICAN BAG AND PAPER CORP., Water and South Sts. • Phila. 47, Pa.



*switch to the packaging that has
changed the nation's buying habits!*

MILLS PLASTIC*

BOTTLES

You can quickly see why MILLSPLASTIC bottles have hit the buying public with such habit-changing power.

Three words—lightweight, unbreakable, versatile—tell the story. They mean greater safety and usefulness for the consumer, reduced shipping, breakage and spoilage costs for the cosmetic, drug and chemical manufacturer. Industrial users find that aside from these general advantages MILLSPLASTIC bottles have properties which make them the best possible containers for acids and a variety of chemicals.

The superior design and quality of MILLSPLASTIC bottles is evident in our two standard styles, Mills "Cylinder" available in 2-4-6-8 oz. and quart and gallon sizes; Mills "Oblong" in 2-4 oz. size. Both styles come in natural Polyethylene or your favorite color.

We also custom design MILLSPLASTIC bottles in sizes, shapes and colors to meet your special needs. Atomizers, tubing and closures are available in standard styles or can be custom made.

Great as the impact of MILLSPLASTIC bottles has been, we don't believe that the surface of their usefulness and versatility has been scratched.

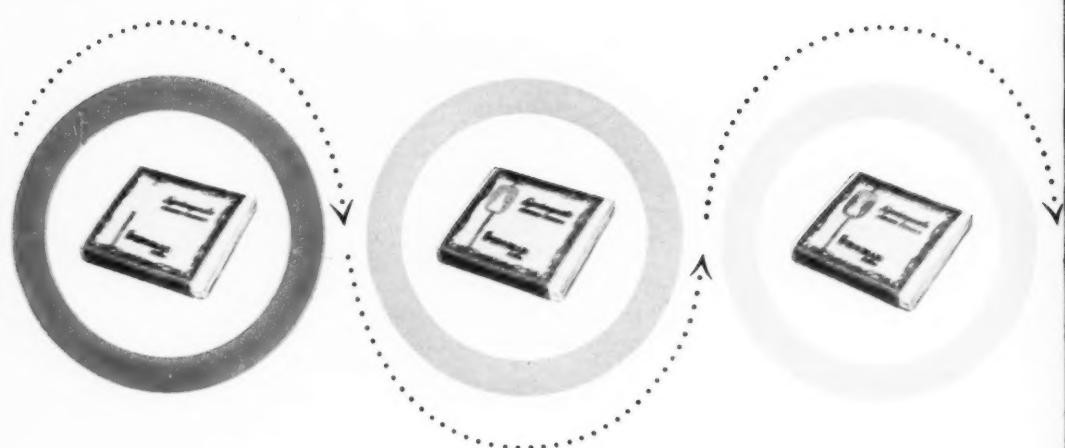
Your product may have a use that can blaze new trails of profit when packaged in MILLSPLASTIC bottles. Why not talk it over with us or our sales agents today. *T. M. Reg.

ELMER E. MILLS CORPORATION
2930 NORTH ASHLAND AVENUE • CHICAGO 13, ILLINOIS

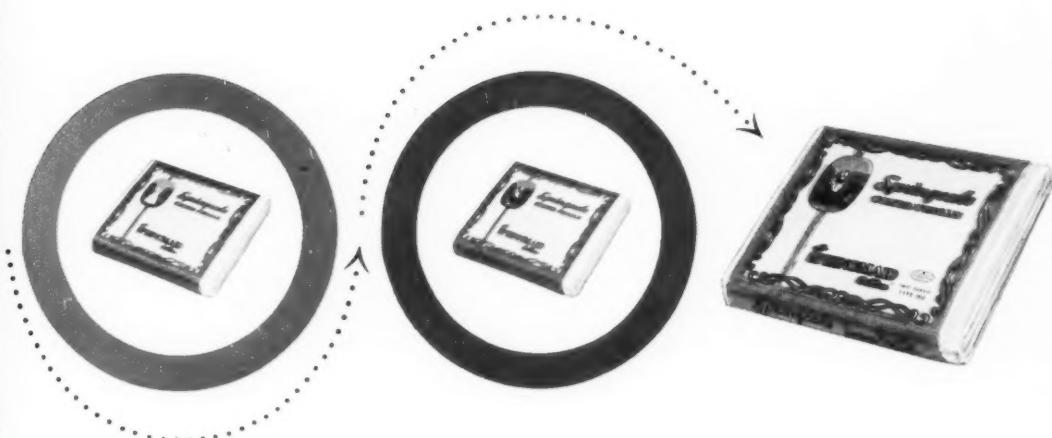
Sales agent for the United States:

W. BRAUN CO., CHICAGO: 300 N. Canal St. • NEW YORK: 715 Fifth Ave.
DETROIT: 139 W. Maple, Birmingham, Mich. • ST. PAUL: 2109 Village Lane





Setting the stage for sales...in any industry!



Color is fabulously important in packaging. The more of it in good taste, the better. And the better it is in design and printing, the more it means when the chips are really down—in *retail sales*. Ask Springs Mills about color. Their new retail line in cellophane packages by Dobeckmun is writing one of the biggest sales stories of the year. It's happening in other industries served by Dobeckmun. It *can* happen in yours. Get in touch with us. Our packaging specialists are ready to serve you in cities from coast to coast. **The Dobeckmun Company**, Cleveland 1, Ohio • Berkeley 2, California • Bennington, Vermont

Linkline for **SALES**

WE CALL THESE NEW JELLY GLASSES *Linkline*

BECAUSE OF THEIR DECORATION . . .



But there is a practical side to the name, for never before have jelly glasses been designed to link packer, dealer and consumer so closely. They're planned for easy packing and handling. They're beautifully designed for handsome labelling and shelf display. And their re-use value at home makes them constant reminders of your product.



THREE PRACTICAL SIZES:
10 OZ., 12 OZ., 16 OZ.



HAZEL-ATLAS GLASS
COMPANY Wheeling, W. Va.

LINK ONTO JELLY SALES WITH *Linkline*



THE "BANKS" LABELLER



Of Unique Design and Principle. A High Speed Fully Automatic BODY LABELLING MACHINE for Cylindrical Containers, Fitted with Electric "No Bottle — No Label" Device.

Precision labelling from 2,400 — 10,200 units per hour using one label stack only.

The "Banks" Labeller is simple to operate, occupies very little space, and positions the labels positively, accurately, and without any trace of surplus gum beyond the edges of the label, irrespective of the label shape or size.

Change from one size of container to another is obtained in a matter of seconds.

Cleaning down takes only a few minutes.

All models arranged for conveyor feed, or, alternatively, Patented Automatic Infeed

Rotary Tables. The machine illustrated is fitted with Patented Automatic Infeed Rotary Table and is labelling penicillin vials.

Manufactured in 6 models suitable for use in breweries, mineral water, food, cosmetic and chemical factories, and the like.

Each model will label all round or part up to the label width capacity of the machine, from $\frac{1}{2}$ " up to 12" wide.

MODEL B. L. M. 3 } will fix back
MODEL B. L. M. D. } and front labels

Over 1,000 machines are at work in or on order for THIRTY Countries and 174 Towns and Cities in Great Britain.

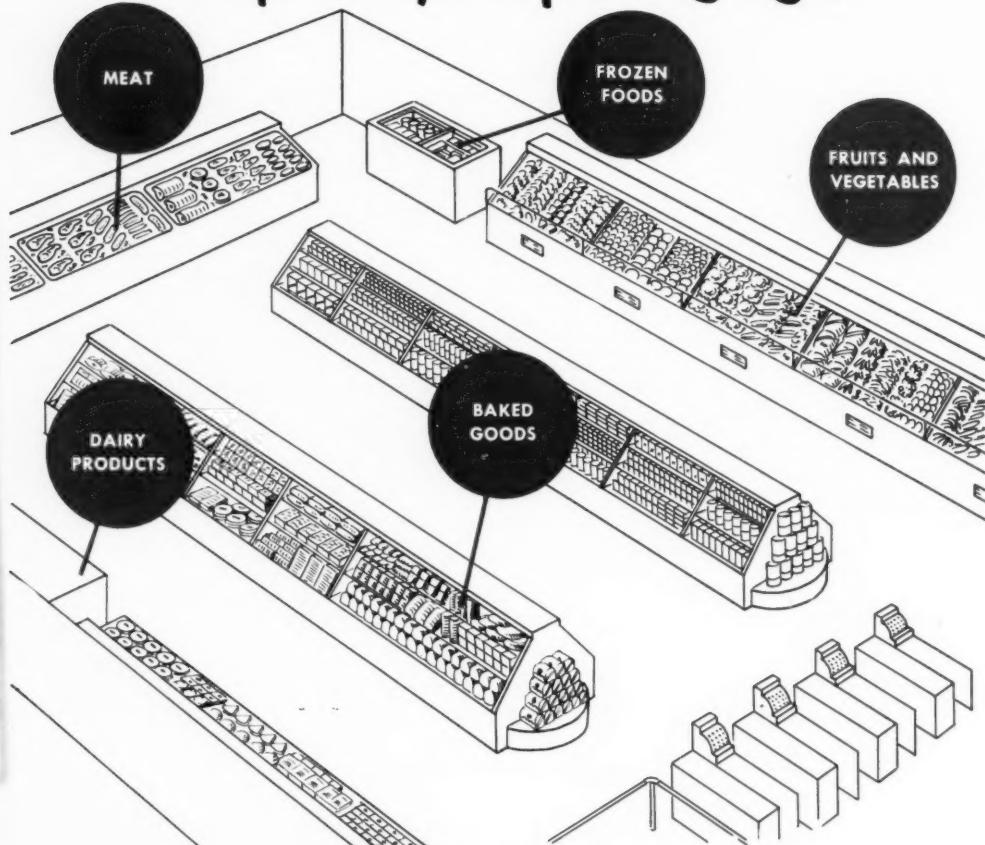
Manufactured by Morgan Fairest Ltd., Sheffield, England



STOKE S & SMITH CO
PACKAGING MACHINERY
Frankfort • Philadelphia 24, U.S.A.

Subsidiary of
Food Machinery and
Chemical Corporation

Where can you use DuPont "Quilon" to improve your packaging?



"QUIILON" stearato chromic chloride



150th Anniversary

BETTER THINGS FOR BETTER LIVING

... THROUGH CHEMISTRY

"Quilon" is a registered trade mark of
E. I. du Pont de Nemours & Co., (Inc.)

Paper treated with Du Pont "Quilon" offers a variety of advantages to packagers of many different foodstuffs. For example, "Quilon" gives:

- Outstanding size and water repellency on ice bags, potato bags, grocery bags and shipping containers.
- Good anti-stick characteristics and balanced resistance to meat juices in butchers' wrap and meat board.
- Superior release properties for packaging baked goods and frozen foods.
- Improved lactic-acid resistance in dairy-products containers.

Ask your supplier for paper treated with Du Pont "Quilon" stearato chromic chloride. Or, for more information, write E. I. du Pont de Nemours & Co. (Inc.), Grasselli Chemicals Department, Wilmington, Delaware.

*"Look... a Perfect Closure
for Every One
of My Products!"*



Yes, only *MeritSEAL* offers such a wide selection of sizes, colors and liner materials to suit every need...

• Cosmetic manufacturers from coast to coast acclaim MeritSEAL for the luxurious, sparkling finish it gives to their products. Attractive, efficient MeritSEAL caps really help *sell* your cosmetics for you.

Hard scratch-resistant coating comes in glistening, jewel-tone colors—handsomely lacquered or lithographed to suit your exact requirements. Exclusive, patented thread spins cap on easily, forms a perfect-fitting seal. Send for full information and samples today . . . no obligation. Simply state your color preference and sizes needed for your products.



MeritSEAL-

CROWN CORK SPECIALTY CORP.

Division of Crown Cork and Seal Co., St. Louis 15, Mo.

Main Office: St. Louis, Mo. • Chicago: 401 Ontario St. • New York: 60 East Forty-Second St.
Western Representative: Western Crown Cork & Seal Corp., San Francisco . . . Los Angeles

He put up a good fight but he lost!

That once familiar sight, the cigar-store Indian with his tomahawk and other accessories, is an all but vanished American. And gone with him are the awkward, inadequate tobacco containers of his day.



Today, tobacco is packed in special tins that are designed to keep moisture and dirt out . . . and the flavor and aroma in! It's a can that keeps tobacco fresher . . . longer!

The modern tobacco can, ideally shaped for convenience and protection, is another example of Canco's ability to design and produce *superior containers for special products!*

Canco, combining versatility and a background of over half a century in the packaging field, will continue to pioneer improvements for its customers.



*CONTAINERS—to help
people live better*



MODERN PACKAGING

**Write for
Samples**



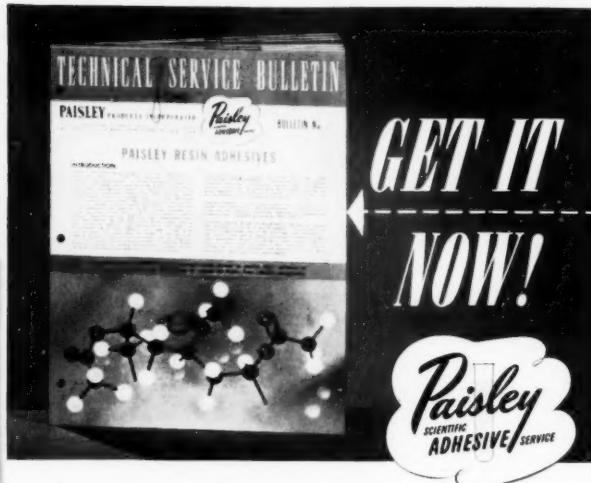
fisher's foils

FISHER'S FOILS LIMITED • EXHIBITION GROUNDS • WEMBLEY • MIDDLESEX • ENGLAND
Telephone : Wembley 6611.

Cables and Grams : Liofnit, Wembley (ABC Code 6th Edn.)

M-W 56

Here's **VALUABLE INFORMATION** For ALL Users Of Resin Adhesives!



**GET IT
NOW!**

Contains Data Never Before Available For Resin Adhesive Users

Every Resin Adhesive user needs this new Paisley Technical Service Bulletin. It tells you all about Resin Emulsion formulation, properties and advantages of Resin Adhesives, methods of application, tips on handling, and lots of other valuable information. A chart of properties available for various industrial uses is a special feature of this profusely illustrated bulletin. A free copy will be mailed promptly to *Resin Adhesive users asking for it on company stationery!*

TEAR OUT.. FASTEN TO LETTERHEAD AND MAIL TODAY!

PAISLEY PRODUCTS INC., 1770 Canalport Ave., Chicago 16, Ill.

Gentlemen: Without obligation, please send me the new Paisley Technical Service Bulletin No. 23.

We have a special Gluing problem. Send us your Adhesive Operation Data Sheet. (You fill in and return to us for Laboratory recommendation.)

FIRM _____

BUYER _____

STREET _____

CITY _____

STATE _____

PAISLEY PRODUCTS INCORPORATED
DIVISION OF
MORNINGSTAR, NICOL, INC.

1770 CANALPORT AVENUE, CHICAGO 16, ILLINOIS ★ 630 WEST 51st STREET, NEW YORK 19, NEW YORK

SALES OFFICES: Baltimore • Boston • Cincinnati • Cleveland • Denver • Detroit • Indianapolis • Jacksonville • Kansas City • Little Rock • Minneapolis • New Orleans • North Providence • Ogden • Orlando • Philadelphia • Pittsburgh • Rochester • St. Louis • Toledo

Manufacturers of Glues • Pastes • Resin Adhesives • Cements and related Chemical Products





MEHL

PACKAGING . . . SATISFYING NEW CONSUMER DEMANDS

Illustrated are a few of the many products packed in Mehl bags. Plastic packaging is adding new buying appeal and protection to products of every type. You'll get greatly increased sales results if you use MEHL plastic bags designed to meet your packaging requirements. Also, cellophane and foil bags and wrappings. For expert advice, prompt delivery, reasonable prices . . . write, wire or phone.

Listed below are a few of the typical civilian and military products for which MEHL provides packaging:

- | | | |
|----------------------------|---|-------------------------|
| Airplane Engines and Parts | • | Large and Small Arms |
| Electronic Tubes | • | Medical Supplies |
| Radio Parts | • | Food Products |
| | • | Machine Tools |
| | • | Clothing and Parachutes |

A Few of the Sydney-Thomas Products

Nationally Advertised



under the SEE-SAFE trademark



SEE-SAFE TRANSPARENT PLASTIC BAGS FOR CLOTHING

SEE-SAFE Plastic Storage and Travel Bags have patented air tight closure devices, protect against moths, dust and dirt.



SEE-SAFE MULTI-USE PLASTIC DROP CLOTHS

A thousand uses in every household. Heavy transparent plastic . . . 9 by 12 feet . . . wipes clean . . . completely non-stickling. Sold through hardware, variety and department stores.

These and many other SEE-SAFE PRODUCTS ARE SOLD THROUGH department stores, dry cleaners, locker plants, hardware, drug, variety and grocery stores.

Converters of Plastics, Cellophane, Foil and other Flexible Materials

Mehl Manufacturing Company

A Division of Sydney-Thomas Corp.
2057 Reading Road
Cincinnati, Ohio

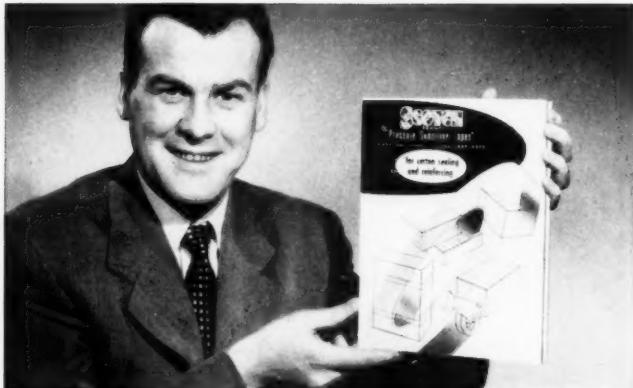


SEE-SAFE FROZEN FOOD PACKAGING FOR HOME FREEZERS

SEE-SAFE Plastic freezer bags and boxes for vegetables, fruits and poultry and roll wrappings of polyethylene, foil and cellophane.



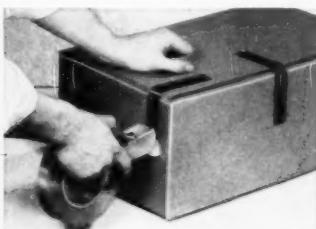
"Name your carton-sealing problem—this folder has the answer!"



IT'S FREE—and it answers your questions about how to seal cartons most efficiently at lowest cost with pressure-sensitive tape. Send coupon today for your copy of this fact-filled brochure . . . see how industries all over the country are making savings, speeding output with the help of the many wonder-working "Scotch" Pressure-Sensitive Tapes.



LARGE, BULKY CONTAINERS are sealed extra fast with paper-backed "Scotch" Pressure-Sensitive Tapes Nos. 250 or No. 280. They stick at a touch, adhere without loose spots, are water-resistant.



PRODUCTION LINE OUTPUT is speeded with dispensers like this mobile Hand Dispenser for applying lengths of tough "Scotch" Filament Tapes. Easily and safely carried from job to job.



MOISTURE-PROOFING of cartons is the specialty of "Scotch" Acetate Fibre Tape No. 710. This tough, waterproof tape holds tight on all kinds of paper or metal, forms a tight, lasting seal.



MAXIMUM SHOCK RESISTANCE is offered by "Scotch" Filament Tape. Secret of its unequalled strength and resilience lies in the reinforcing filaments of rayon or glass that run through its entire length.



MILITARY PACKAGING requirements are met and exceeded with "Scotch" Acetate Fibre Tapes Nos. 711 and 721. Both are rigidly inspected and passed for use in D. O. sealing and reinforcing.

**Minnesota Mining & Mfg. Co.
St. Paul 6, Minn.**

Dept. MP-52

Please rush copy of folder on Have a representative
Carton Sealing and Reinforcing. call.

Name

Title

Firm

Address

City Zone . . . State . . .



The term "Scotch" and the plaid design are registered trademarks for the more than 200 pressure-sensitive adhesive tapes made in U.S.A. by Minnesota Mining & Mfg. Co., St. Paul 6, Minn.—also makers of "Scotch" Sound Recording Tape, "Underseal" Rubberized Coating, "Scotchlite" Reflective Sheeting, "Safety-Walk" Non-slip Surfacing, "3M" Abrasives, "3M" Adhesives. General Export: 270 Park Avenue, New York 17, N. Y. In Canada: London, Ont., Can.



THE DALMATION, originally bred to run with coaches and carriages, may suffer from technological unemployment today but he is still popular. He is a loyal, one-family dog.

The pure breed is white with either brown or black spots, round and varying in size. He should measure 19 to 23 inches in height.



For Safety in Shipping

Buy the Box with a Pedigree



Dependable Packaging
Since 1872

BORDEN'S Grated American Cheese is one of many famous national brand products shipped by truck, rail, water or air in Union corrugated containers—the boxes with a pedigree.

Reserve strength to withstand the hazards of all forms of shipping is built into Union boxes. Rigid quality control begins in Union forests and follows production through the world's largest integrated pulp-to-container plant and four strategically located box plants.

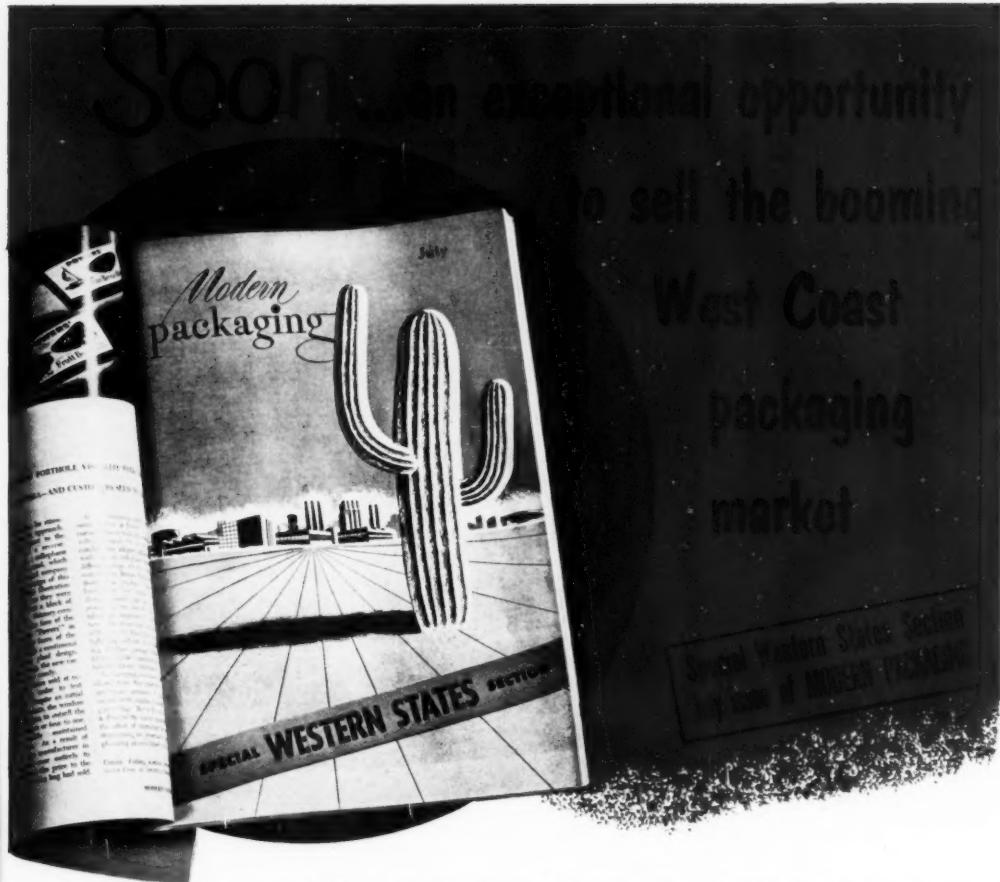
So, for safety in shipping, do as many makers of national brand products do—call on Union. 75 years of leadership in package engineering and mass production techniques is assurance you will get the right box for your product at the right price, delivered where you need it *when you need it*.

UNION Corrugated Containers

UNION BAG & Paper Corporation

Principal Offices: WOOLWORTH BLDG., NEW YORK 7, N.Y.

Corrugated Container Plants: SAVANNAH, GEORGIA • CHICAGO, ILLINOIS • TRENTON, NEW JERSEY



Here's why it adds up to an advertising "natural"!

... The unmatched advertising impact of the leading national packaging magazine.

... in a special "Western States" section dealing exclusively with Western packaging conditions.

... timed for distribution to Western packers before they assemble at the Fourth Western Packaging Show in Los Angeles.

... with an additional circulation of 3,000 copies of the special section go-

ing to hand-picked lists of Western packaging men to insure blanket coverage of the market.

... plus MODERN PACKAGING'S full nation-wide circulation of more than 19,000 copies.

... and all this at regular advertising rates!

Or ... if you are interested in reaching MODERN PACKAGING'S Western audience **only** ... select the special "split" distribution plan that lops off unwanted, national circulation and delivers your ad—with all the prestige of MODERN PACKAGING behind

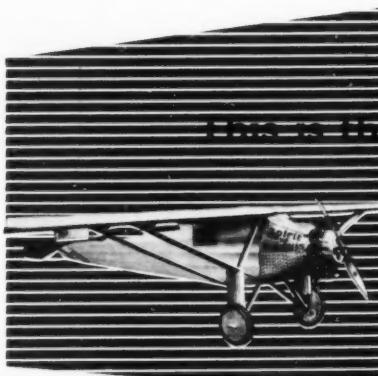
it—solely to readers in the eleven Western states.

Under the terms of this special option, advertising rates are drastically lower (less than those of a regional magazine!) yet give you a **guaranteed** minimum of 6,000 Western readers!

Write for details. The Western States section will appear with the regular July issue of MODERN PACKAGING. Last forms close June 10th. For more details, space reservations and rate card, write MODERN PACKAGING, 575 Madison Avenue, New York 22, N. Y.

Modern packaging

MODERN PACKAGING
A Division of THE PUBLICATIONS GROUP



This is the "Standard" for Daring

Twenty-five years ago,
on May 20, 1927,
the "Spirit of St. Louis"
made the first solo
air bridge of the Atlantic,
from New York to Paris.

This is the "Standard" for Package Printing

Dress up a package of bacon
in a sprightly,
multi-color Standard
printed cellophane wrap
... and it becomes
more taste-tempting
and mouth-watering than ever.



standard printing company

PRINTERS OF CELLOPHANE, ACETATE and GLASSINE SINCE 1936

COLUMBUS, GEORGIA

Sales Offices: Dallas, Texas—Charlotte, N. C.—Jackson, Miss.

Introducing

CHESLON

extruded tubular vinyl

- Transparent — possesses high tensile strength
- Retains pliability thru wide temperature range
- Heat-sealable by conventional equipment
- Variety of gauges—1 mil and up with uniformity
- Ageing qualities excellent — fully printable
- Packaging versatility — uses any type closure
- Competitively priced — wide adaptability

A NEW NAME FOR TUBULAR VERSATILITY • STRENGTH • TRANSPARENCY • RESILIENCY

CHESLENE (Polyethylene)

another Chester product,
available in sheeting and
flat and gusseted tubing

Detailed Information on Request

CHESTER Packaging

Products Corp. Extruders of Cheslon Films
and Cheslene-Polyethylene

284 Nepperhan Avenue • Yonkers 2, N.Y.

NEW YORK OFFICE: 299 MADISON AVE. • N.Y. 17 • MURRAY HILL 7-1196



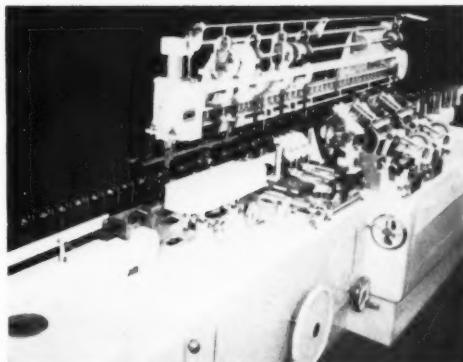


BETTER - because it's done in one motion!

A NEW HIGH in precision labeling is now achieved on Pneumatic Direc-Transfer machines.

No picker plates or gripper fingers are used in transferring the individual labels from stack to container. They are fed and controlled entirely by air suction pads. Each label receives a uniformly thin coating of adhesive, and is given ample time for moisture to penetrate and "temper" the paper stock. Result is exact registration and complete adhesion of label.

Direc-Transfer labeling therefore, means better bottling for producers of drugs, liquor, foods, and cosmetics to mention only a few general classifications. Write for Bulletin 116 which illustrates three available models.



Pneumatic's 6-Inch Duplex Direc-Transfer Labeler with Spotting Device

★ ★ ★
PNEUMATIC SCALE CORP., LTD., 82 Newport Avenue, Quincy 71, Mass.
Also: New York; Chicago; San Francisco; Los Angeles; Seattle; Leeds, England.

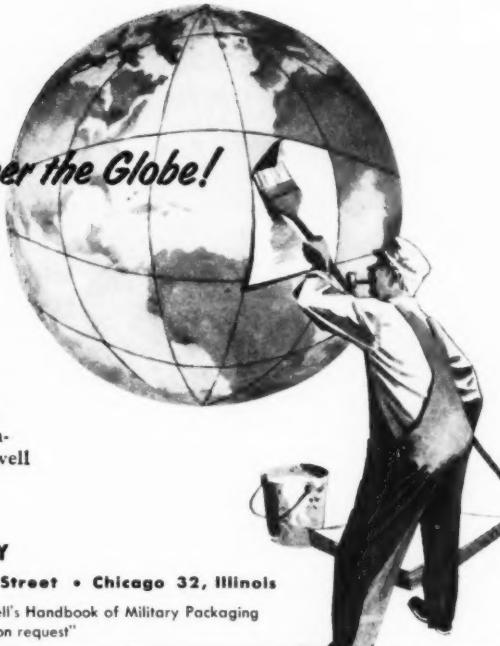
Packaging and Bottling Equipment



CROMWELL PAPERS—paper the Globe!

with distributors throughout the world

There must be a reason why any group of products enjoys a world-wide acceptance. With Cromwell Papers, the reason is Quality. If your need is for highly specialized protective papers . . . for custom-made or machine-made bags . . . for a perfectly tempered tympan . . . write, wire or call for a Cromwell representative to discuss it with you.



CROMWELL PAPER COMPANY

4801-33 South Whipple Street • Chicago 32, Illinois

"Up-to-date supplementary sheets for Cromwell's Handbook of Military Packaging are now available on request"

these outstanding distributors carry
CROMWELL

... special prepared Tympan

ALABAMA
Birmingham—Strickland Paper Co.
Montgomery—Atkinson Paper Co.

ARKANSAS

Little Rock—Arkansas Paper Co.
ARIZONA

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Tucson—Blake, Moffitt & Towne

CALIFORNIA

Fresno—Blake, Moffitt & Towne
Los Angeles—Blake, Moffitt & Towne

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Miami—E. C. Palmer & Co. Ltd.

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Atlanta—Somerville Seybold
Macon—Dillard Paper Co.

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Chicago—J. W. Butler Paper Co.

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Decatur—Decatur Paper Co.

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Minneapolis—Paper Supply Co.

St. Paul—John Boshart Paper Co.

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West Jackson—Jackson Paper Co.

MISSOURI

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St. Louis—Birmingham & Prosser Co.

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Toledo—Central Ohio Paper Co.

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Oklahoma City—Western News-

paper Union

Tulsa—Tulsa Paper Co.

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PENNSYLVANIA

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Memphis—Western Newspaper

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Paper Co.

Knoxville—Dillard Paper Co.

TEXAS

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Dallas—E. C. Palmer Co. Ltd.

El Paso—Carpenter Paper Co.

Ft. Worth—Southwestern Paper Co.

Hartlingen—Carpenter Paper Co.

Houston—E. C. Palmer & Co. Ltd.

San Antonio—Carpenter Paper Co.

UTAH

Salt Lake City—Western News-

paper Union

VIRGINIA

Richmond—Wilson Paper Co.

WASHINGTON

Seattle—Blake, Moffitt & Towne

Spokane—Blake, Moffitt & Towne

Spokane—Spokane Paper &

Stationery

Tacoma—Blake, Moffitt & Towne

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Avenida N. S. de Fatima

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P. O. Box No. 1674

Caracas, Venezuela

A. C. Ronson Philippines Corp.

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F. A. G. Ltd.

P. O. Box No. 166

Lausanne, Switzerland

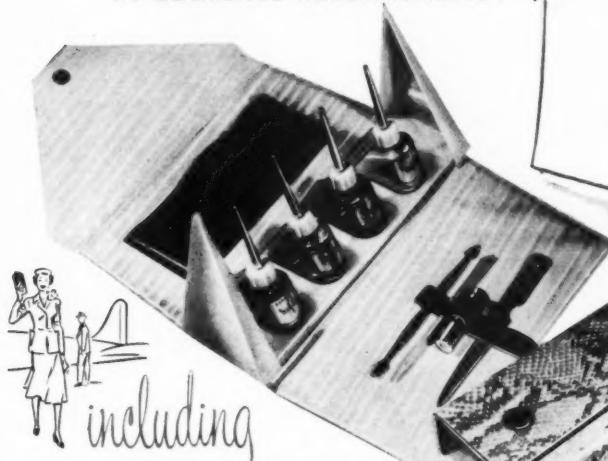
B. Winstone & Sons Ltd.

50 Stamford St.

London S. E. 1, England

THE Smart Set

IN COSMETICS MERCHANDISING!



**MAKE UP KITS, HARD CASES,
SEMI-HARD CASES, ENVELOPES,
WRAPS, BAGS, BOXES, ETC.**

Catch the feminine eye with cosmetics that look the part of the promise fulfilled...new, smart, alluring. E-I plastics are the modern touch that completes the cosmetic package. These handsome packages and cases can be styled in any size or shape...hard, semi-hard or completely flexible...boxes, cases, bags or envelopes...in a choice of permanent solid tones or grains. Functional and beautiful, E-I Plastics feature durability, washability and colors that are permanent.

Completely practical from a cost standpoint, unit prices based on reasonably large quantities are surprisingly low. Ask for an E-I representative to explain the many advantages to your sales or advertising executives before your next sales promotion planning conference!

Your choice of materials! Widest selection of grains and patents

LEATHER GRAINS	Box Calf, Cowhide, Pigskin, Pineal, Alligator, Spanish, Morroco	Gauges: .020, .012, .008, .006, .004
TEXTILE GRAINS	Moire, Satin, Herringbone, Tweed, Plaids, Checks, Sharkskin	Gauges: .020, .012, .008, .006, .004
PATENTS	Metallic, Opaque, Prints, Polished Prints	Gauges: .020, .012, .008, .006, .004

E-I Plastic Packaging for Cosmetics



E-I

**PLASTIC PACKAGING
IS AVAILABLE OPAQUE,
TRANSLUCENT OR
TRANSPARENT**

E-I designers will suggest styling, color and grain consistent with the function and appearance of your packaging requirements. There is no obligation for this E-I plastics service. If samples and estimates are desired, please mention quantities needed.

Plastic Packaging
Division



ELECTRICAL INDUSTRIES • INC

44 SUMMER AVENUE, NEWARK 4, NEW JERSEY

A Star Quartet of Economical, Sales-Building Packages for Your Products



Bemis Deltaseal®

—This long-time favorite has exclusive pull-cut-pour spout. Billboards your brand . . . and flat tops and bottoms help build excellent mass displays.



Bemis Deltaphane®

—If your trade prefers a window package, Bemis Deltaphane, with the "picture window," is your best bet. Your brand in crisp, bright colors on all four sides. Has the pull-cut-pour top, too.



Bemis Cellophane

—There's an increasing demand for the *show window* bags — Bemis Cellophane. Bemis' bright, eye-catching printing makes your brand shine like a headlight.



Bemis Flexi-Carton®

—Sturdy, gusseted bag, single-, 2- or 3-ply. A fine shelf package, with your brand printed on all sides. Closures: sewing, taping, stapling, pasting.

Here's another bonus for you . . . Bemis Deltaseal Packaging System *closes all of these types of bags (except Flexi-Carton)*, so you can meet the varied demands of your trade. Deltaseal Packaging System is the most economical packaging operation for you . . . proof on request.

Bemis is also your best source for Burlap, Cotton, Multiwall, Paper and Waterproof Bags. Ask your Bemis Man for the complete story.

THERE'S A BEMIS PLANT OR SALES OFFICE NEAR YOU—
Baltimore • Boston • Brooklyn • Buffalo • Charlotte • Chicago • Cleveland
Denver • Detroit • East Pepperville, Mass. • Houston • Indianapolis • Kansas City
Jacksonville, Fla. • Los Angeles • Louisville • Memphis • Minneapolis • Mobile
New Orleans • New York City • Norfolk • Oklahoma City • Omaha • Peoria
Philadelphia • Phoenix • Pittsburgh • St. Louis • Salina • Salt Lake City • Seattle
San Francisco • Vancouver, Wash. • Wichita • Wilmington, Calif.



Bemis



ALCOA FOIL keeps his fire dry...

There's fire in this small packet . . . chemical pellets that will flare at the flick of a match—heat an entire ration. But to work, they must be kept dry.

Alcoa Aluminum Foil, laminated to a waxed glassine paper, does the job. Formed into the packet shown, Alcoa Foil sets up a barrier against moisture, deterioration.

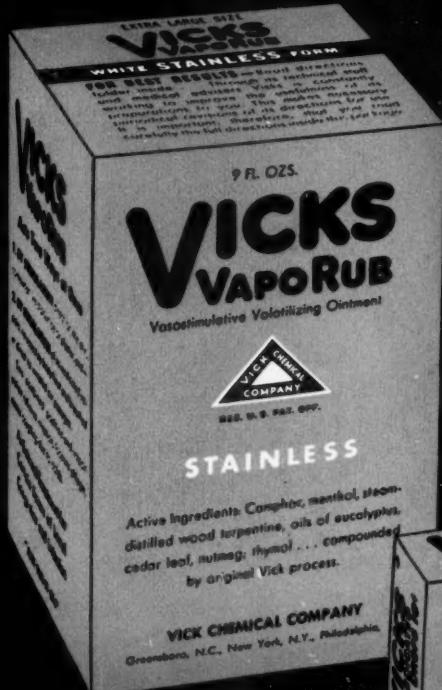
Military applications like this are only the forerunner of greatly improved peacetime packaging in foil and foil laminates. We will be glad to send you names of leading packaging firms—pioneers in the use of Alcoa Aluminum Foil—who can help you with any problems you may have in the field of protective packaging.

Call your local Alcoa Sales Office, listed under "Aluminum" in your classified phone directory, or write:

ALUMINUM COMPANY OF AMERICA,
1760E Gulf Building • Pittsburgh 19, Pa.



Barrier wrap shown, manufactured by Milprint Corporation for Bostwick Laboratories, Inc.



From the *Gardner* Gallery of famous American Packages

Quality

... IS NEVER A STAND-STILL WORD

Few products achieve a reputation for quality by standing still, by indulging in the luxury of self satisfaction.

As a matter of fact, quality *itself*, as every successful manufacturer knows, is a relative thing. There is only one way to keep it out in front.

That's why, here at Gardner, we believe in never being quite satisfied with a good job. We feel an obligation to ourselves—and to our customers—to do even better, tomorrow, what we have gained recognition for doing well, today.

We think that's an important reason why you'll find so many of America's most famous products packaged in Gardner cartons.

THE GARDNER BOARD AND CARTON CO.

Manufacturers of Folding Cartons and Boxboards

**GENERAL OFFICES: Middletown, Ohio—PLANTS: Middletown, Ohio; Lockland (Cincinnati), Ohio
Sales Offices in Chicago, Cleveland, New York, Philadelphia, Pittsburgh, St. Louis**





stop the eye . . . start the sale pack to attract in maryland blue

Beauty is as beauty does . . . and the rich, colorful beauty of Maryland Blue Glass attracts the eyes and dollars of millions of shoppers. Blue stands out and says, "Buy Me!" Blue does double-duty as a container and a salesman . . . it acts as a powerful advertising, merchandising and selling tool. So dress your product in the style of many leading brands. Pack to attract in Maryland Blue. Write for samples today.

MARYLAND GLASS CORPORATION • BALTIMORE 30, MARYLAND

also available in clear glass

**Give Your Promotion
New Super-Brightness
with**

**Crocker
DAY-GLO®
Coated Papers**



You can spotlight your promotion — make your labels, packages, inserts, direct mail and displays visible up to four times as far — with Crocker DAY-GLO Coated Papers.

You can make your smallest package super-bright—give your whole line new shelf value, new eye appeal, new stopping power—with Crocker DAY-GLO Coated Papers.

You can process your promotions and your point of sale materials in any way you want—reproduce them by offset, letterpress, gravure or silk screen. Crocker DAY-GLO Coated Papers not only are the Brightest Papers in the World—they're most versatile.

There's a Crocker DAY-GLO Paper merchant near you. He'll be glad to show you samples, do everything he can to shed new light on your promotion and packaging problems.

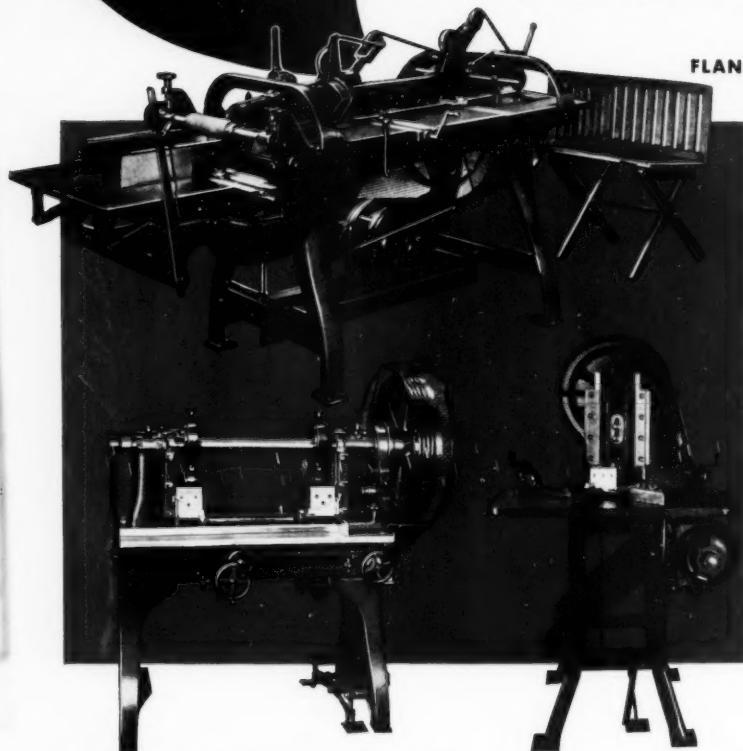
Be Bright—use DAY-GLO®

CROCKER, BURBANK PAPERS 
INCORPORATED
FITCHBURG • MASSACHUSETTS

SWITZER BROTHERS, INC.
4732 ST. CLAIR AVENUE
CLEVELAND 3, OHIO

ARE YOUR SET-UP BOX COSTS at **BREAK-EVEN POINT?**

These Machines...Our Engineers
...Knowlton Experience...May
Help You Hold the Profit Line



FLANGE BENDER

Simply stating that the automatic Flange Bender will increase your output and produce a higher quality box only hints at the advantages of the Empire model. Obviously, it replaces hand bending, a costly operation, because with a Flange Bender an hour's run will turn out more blanks than you can do by hand in several days. Only tool needed to make adjustment is the hand crank furnished with machine. Soon pays for itself in labor saved. Let us send you literature that gives you detailed description of the Automatic Flange Bender.

SINGLE and DOUBLE CORNER CUTTERS
In paper box-making plants all over the country Knowlton Single (5½") and Double Corner Cutters (4⅜") have production records that are hard to beat. They stand continual usage without breaking down and keep product waste at a minimum. From rugged frame to

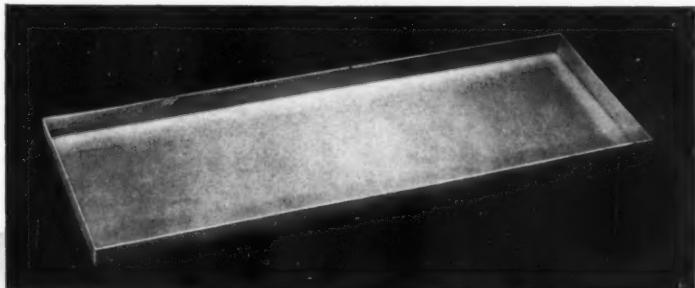
precision gear-adjustable gauges, they are designed to turn out work fast, accurately and uniformly, whether the cutting need is light or heavy, deep or shallow. These Corner Cutters have features that will interest any Set-Up Box man who is interested in cutting costs.

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▲ **Light diffuser**—the largest ever injection-molded in Plexiglas. This fixture, for Lightolier, is 4 feet long, and is used for diffusion of fluorescent light.



◀ **Washing machine agitator**—the type now used by most manufacturers. Strong, solid, with no pitting from action of detergents.

Both are Products of Prolon Plastics!

TODAY 'most anything can be designed and molded by Prolon Plastics!

The two products above are part of the range of Prolon products. The light diffuser is the solution to two major problems: for Lightolier—a unit which would evenly diffuse the light of fluorescent lamps, without the checkered glare of old style units. For Prolon—the challenge of injection-molding such a large unit from Plexiglas. The problems were both solved. Now Prolon can produce such light diffusers *in any size!*

The washing machine agitator is another triumph of Prolon Plastics. These units used to

be made of metal, and were subject to pitting from detergent-action. The agitator by Prolon has all the advantages of previous materials, plus resistance to chemical action!

Prolon has plants at Florence, Massachusetts, and Toronto, Canada. Prolon services cover the field—from research and design to molding (compression and injection) and assembly. Send for this free booklet, showing the complete range of Prolon facilities. Address:



Prolon Plastics (B) Pro-phy-lac-tic Brush Company, Florence, Mass.



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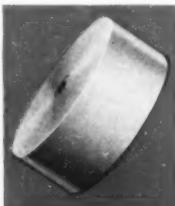
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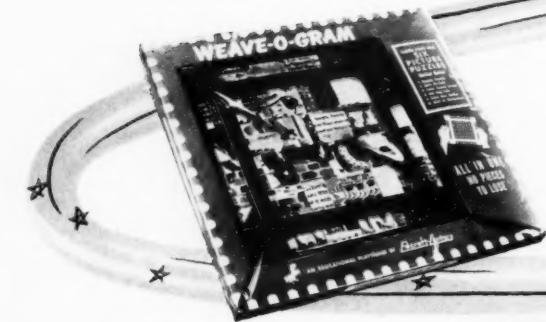
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ATTRACTIVE appearance and maximum visibility win more toy sales! Du Pont Acetate Film enhances brilliant colors . . . puts product on display in a showcase of its own. And handling won't lessen salability when Du Pont Acetate Film is on the job.



INFORMATIVE printed band of Du Pont Acetate Film tells brand name and benefits of these gloves at a glance. This packaging approach works well wherever product identity is stressed, and items are sold in pairs or sets. The high gloss of Du Pont Acetate Film adds an important quality look.



SANITARY packaging is needed for many items like handkerchiefs, linens, lingerie, napkins, wash cloths, nipples, teething rings and many other products. Du Pont Acetate Film adds a luxurious touch to products. It suggests product quality and guards against dust and dirt at the same time.



DISTINCTIVE packaging is achieved with Du Pont Acetate Film. The distinction plus an effective way to prompt higher sales of related items are combined in the application shown here. A bottle of perfume is placed on top of a powder box and covered with sparkling Du Pont Acetate Film.

DU PONT ACETATE FILM



150th Anniversary
BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY



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the quality of
your cartons?**



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This attractive package is representative of the fine folding cartons Empire Box is producing for leaders in industry.



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helps sell your product...at a greater profit!



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Waxed paper packaging ties in with your advertising and promotion at the point-of-sale, makes your brand stand out on the shelf. And the protective qualities of economical waxed paper give you a convincing reason-why story on product freshness for your advertising, too.

... SELL MORE ... MORE PROFITABLY ... WITH



POSITIVE PRODUCT PROTECTION: Waxed paper protects products against extremes of temperature and moisture . . . keeps moist products moist . . . dry products dry. Preserves the original freshness and flavor of your products.



APPETITE APPEAL: Proper design and the use of effective colors, makes waxed paper packaging a superior salesman at putting over the impression of appetizing freshness and flavor. And you can print your flavor and freshness story right on the package!



CONSUMER ACCEPTANCE: Millions of housewives use waxed paper every day, to protect and preserve unused portions of food. Their confidence in waxed paper is clearly shown by the vast quantities they use, and by their increasing demand for products in waxed paper packaging.



MAXIMUM DISPLAY VALUE: Waxed paper ties your entire line together . . . you can build a family resemblance into the design of all your packages; get plus-value from the money you spend to advertise your fastest-selling products.

IMPORTANT SAVINGS! With rising costs squeezing profits, right now is the time to consider the selling advantages, and savings, you can effect *only* with waxed paper packaging. Costing less, yet offering you more merchandising opportunities than any other packaging material, waxed paper is your best packaging buy . . . the modern way to sell *more* of your products at a *greater* profit.

Waxed paper gives you all these advantages too!

- 1. Protects Freshness.
- 2. Protects flavor.
- 3. Production Efficiency.
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- 5. Easy to open.
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Four-piece Atlas Ply-Fold Crate, designed for the shipping of heavy articles—where unusual stacking strength and a completely closed container are required.



Open-end, four-piece
Atlas Ply-Fold Crate, with
unusual stacking strength and
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One of these four **ATLAS "PLY-FOLD"** CRATES

provides exactly the shipping
protection your product requires



Atlas Ply-Fold Crate, similar to
that at the left. However, this
container is fitted with backbars
for the shipment of articles
requiring backbar assembly.

It is our privilege to supply plywood containers to the leaders of a great many industries—for the domestic or export shipment of a very wide range of products. Some are light, some are heavy; some are small, some are very large.

Four of the most important types of Atlas Plywood Crates are pictured above. Each of these is delivered with the components partially assembled—which means ease and economy in assembly. All feature light-weight construction, minimum displacement, minimum container cost, minimum shipping cost.

For the past 22 years we have maintained—in Lawrence,

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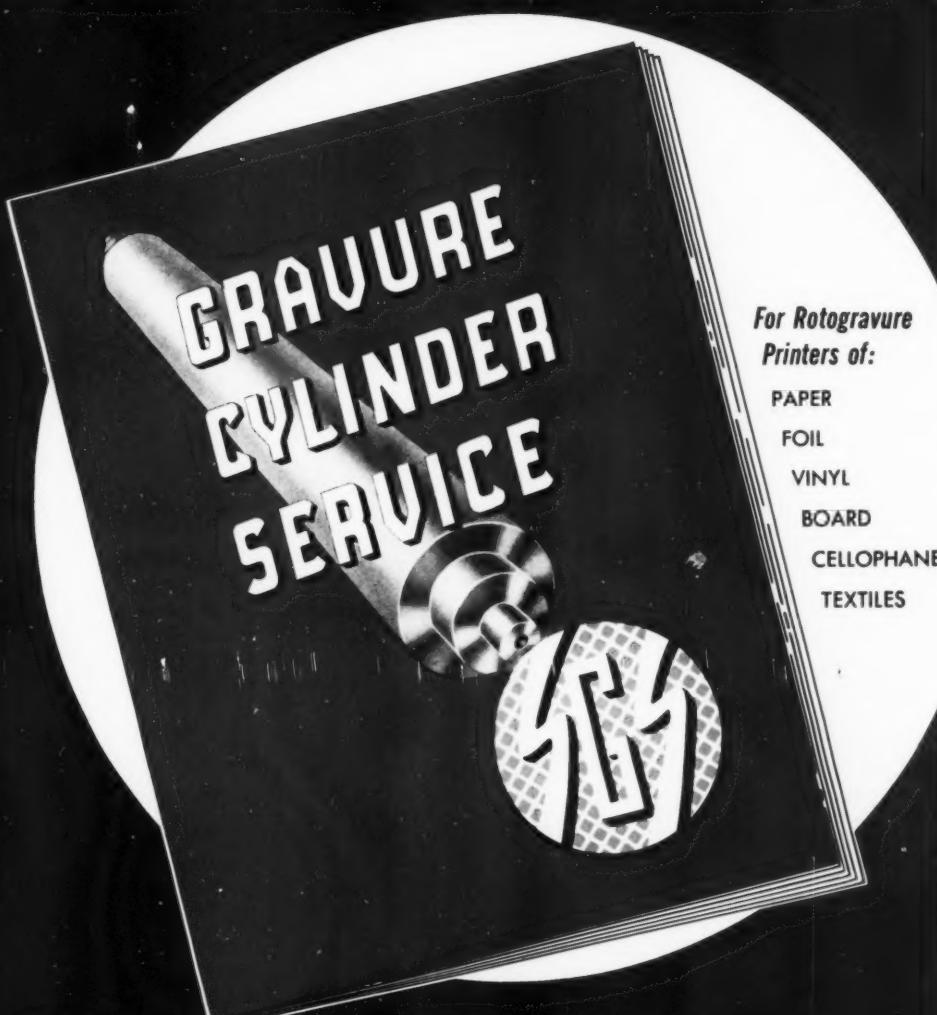
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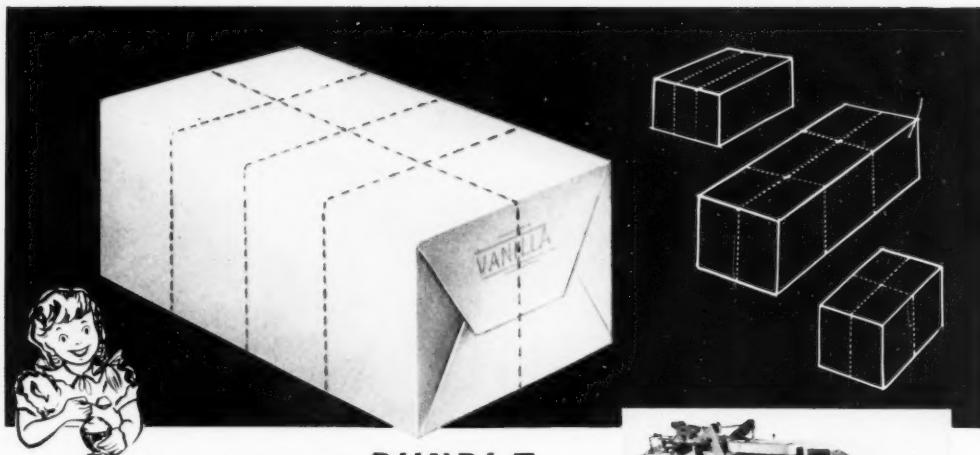
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*Wrap 'em in a **BUNDLE**
instead of a box!*



SAVE TIME, LABOR, MONEY

with a ***Hayssen***
AUTOMATIC ACCUMULATOR and BUNDLE WRAPPER

The Hayssen Accumulating and Bundling Machine will pay for itself quickly because of its surprisingly low first cost, (half of what you'd expect) and the elimination of expensive cardboard cartons, boxes and other containers. A multiple number of pack-

ages are automatically accumulated and inexpensively wrapped into an easily-handled kraft paper package at remarkable speed . . . and with the smooth, dependable operation typical of Hayssen wrapping machines.

A PROVEN BIG MONEY-SAVER . . . MONEY-MAKER

for Manufacturers of Ice Cream, Toiletries, Drugs, Candy, Crackers, and many other cartoned products

There's a strong demand for this Hayssen machine because it means a substantial saving of time, labor and money . . . meets today's need for reduced packaging and shipping costs.

making the entire operation completely automatic, thus eliminating labor problems. If your purse and production volume require it, any part of the accumulating may be accomplished manually.

The Accumulator and Bundler can be installed with a Hayssen Automatic Individual Wrapping Machine, thus saving floor space. Conveyor lines can be added to this DUAL-PURPOSE unit,

FIND OUT HOW you can help beat high labor costs and inflation problems with Hayssen Automatic Machines. WRITE for further details. Tell us your wrapping problem—we may have the answer.

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*Aluminium
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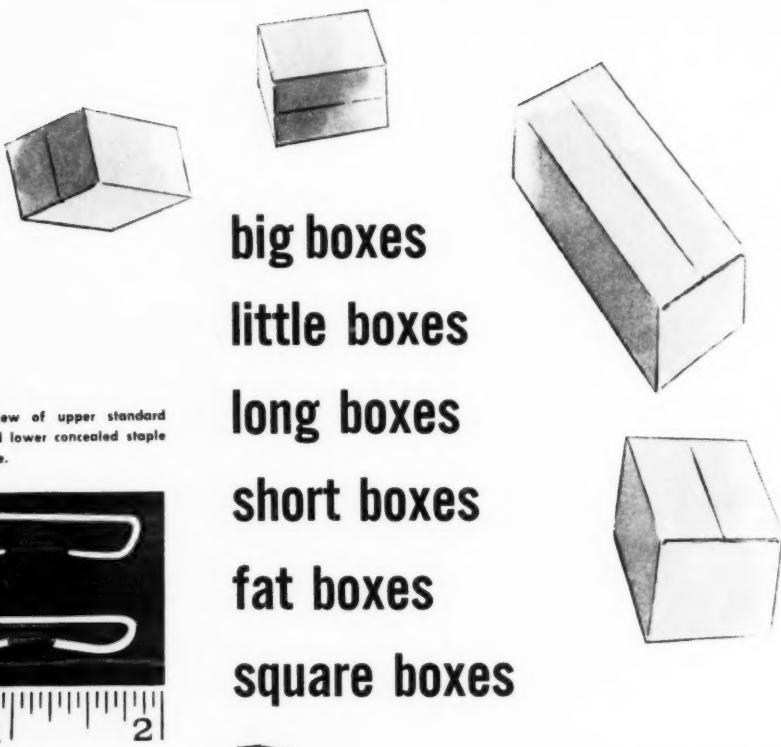
Full protection plus attractive appearance is achieved
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VENESTA PRINTED ALUMINUM FOIL.

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discerning buyer will find that he is fully justified in
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close 'em all on one machine

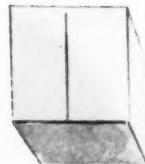
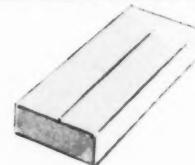
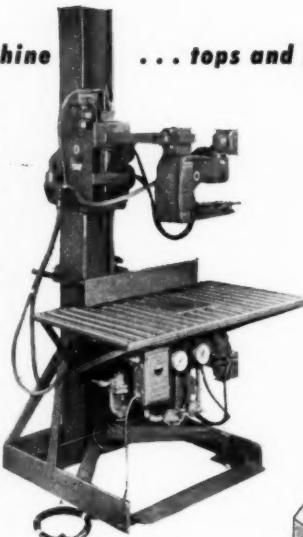
Whatever your closure problem—if you use corrugated and fibre cartons, and particularly, if you use different size cartons—it will pay you to investigate International stapling machines!

International stapling machines close tops and bottoms simultaneously—and close 'em fast. They use less staples in an exclusive pattern (Rule 41 CFCPR)—they save you material, manpower and space—they close different size cartons on the same machine.

International stapling machines are made in 30 models and prices to exactly fit your needs—from portable hand operated models to the latest in automatic equipment. Investigate today—join the hundreds of nationally famous companies who are now saving up to 50% on shipping costs with International machines.

Write for full details.

... tops and bottoms simultaneously!

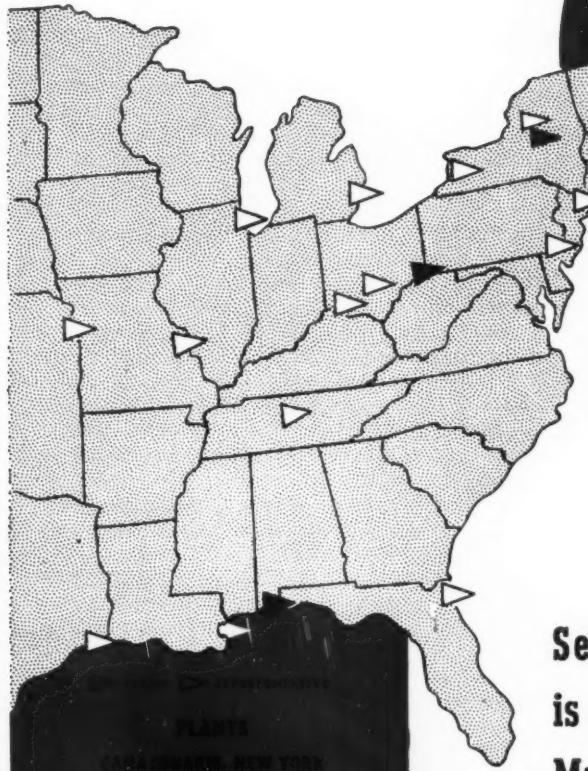


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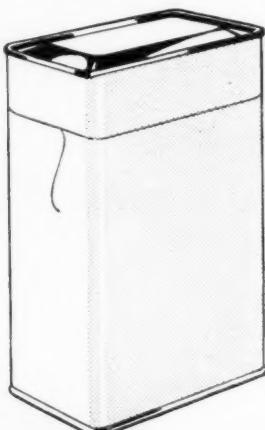
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Sefton's String-Opening Cans!

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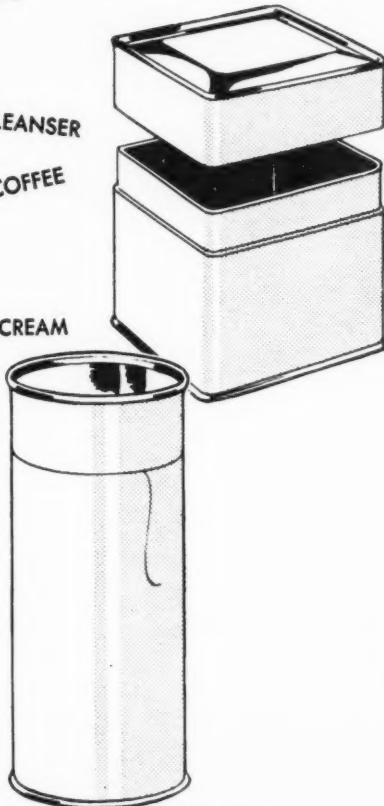
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Scores every time . . . with no strikes against it!

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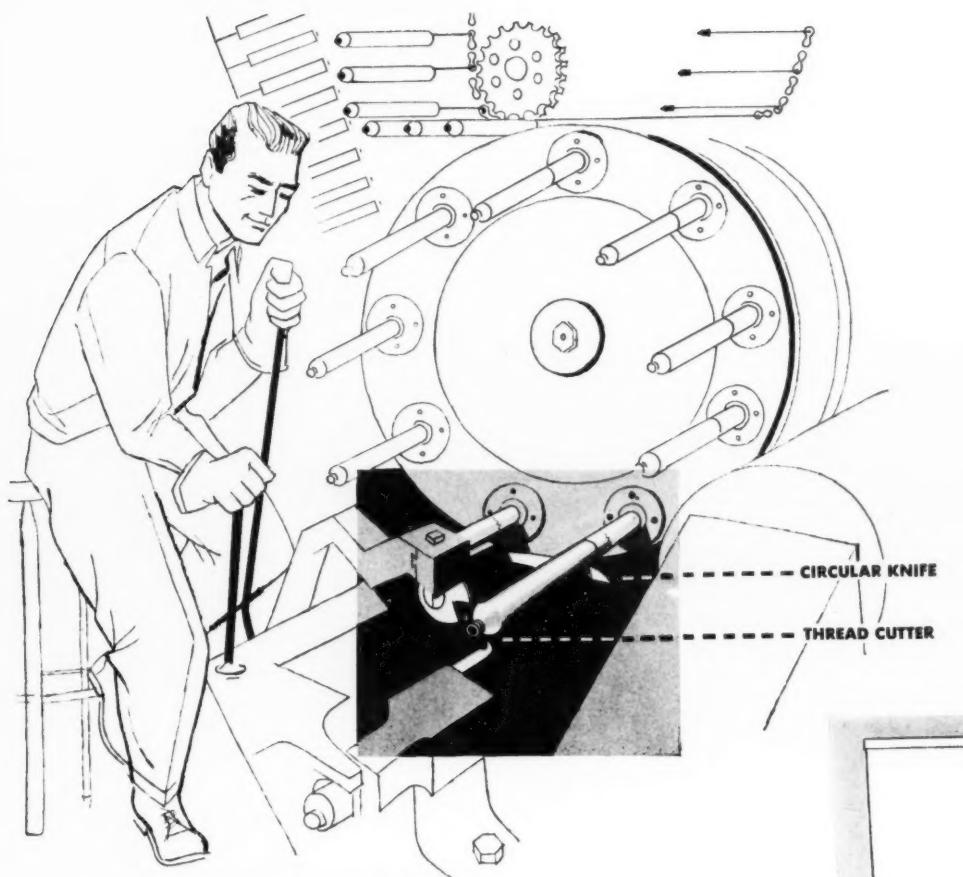
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Both operations look simple. But tubes even slightly too long or too short might mean interruptions on the filling line. And the smallest

deviations from thread measurements could cause troublesome capping problems.

That is why at this step, as well as every other, Sun Tube stresses meeting specifications *precisely*. That is the only way to assure *quality* tubes for our customers...tubes that fill at lowest cost, sparkle with sales appeal, and protect the product perfectly.

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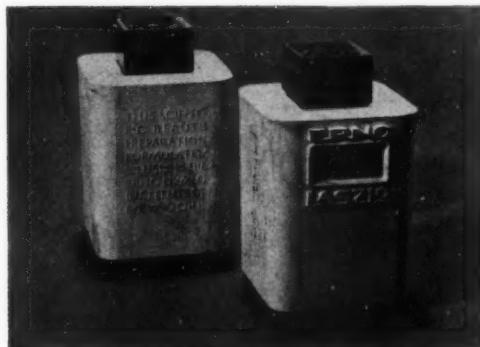
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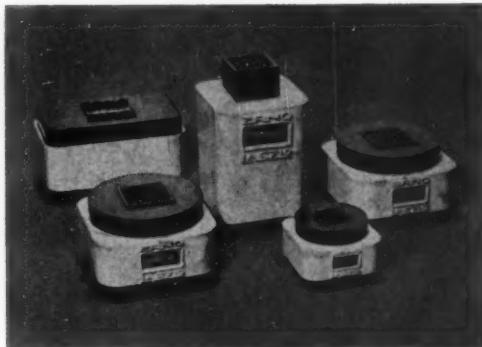
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here's Sheer Elegance

in cosmetic containers "topped" by
exquisite relief-molded cameo closures



The 8 oz. bottle utilizes two BEETLE closures. The decorative, square closure is molded with inner ribs so that it may be snapped into place over a functional, round, threaded closure.



BEETLE closures for The Erno Lazslo Company were designed by Carl Otto and molded of BEETLE urea plastic by Plastics Division of Colt's Manufacturing Company.

made of BEETLE® plastic

Leave it to versatile BEETLE urea plastic to meet a challenge such as this: to express, in a closure, the character and prestige of one of the most exclusive cosmetic lines in the retail field. Obviously it would have to be distinctive and elegant.

And BEETLE did it! With its beauty, color permanence, dimensional stability and excellent workability, BEETLE gave top performance in the mold, fashioning a closure of eye-stopping magnificence, with strong selling power for the highest-priced field.

BEETLE does lesser jobs, of course, and big or little, it does its job well, lending color, character and richness to all types of container tops. BEETLE does not stain from alcohol, mild chemicals, essential oils or perspiration. And it won't attract dust on counters!

So, for "top" performance, investigate BEETLE plastic.



In Canada: North American Cyanamid Limited,
Royal Bank Building, Toronto, Ontario, Canada.

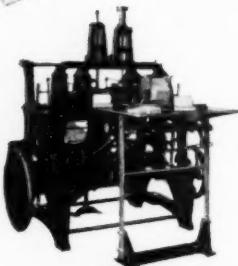
Again the choice is US



At the huge, new PHILIP MORRIS plant in Louisville, Brightwoods form distinctive cigarette display cartons.

A battery of U. S. Automatic Brightwood carton-forming machines will help package the output of Philip Morris' new Louisville plant — one of the largest cigarette factories in the world. The Brightwoods precisely form and glue these attractive display cartons at high speeds that easily keep pace with cigarette machine production.

U. S. Automatic Brightwood carton-forming machines are now available in two types, each built in several models. The *Standard* is a versatile machine which is suited to handle a wide range of blank sizes. Change-over is fast and simple. Speeds up to 60 finished boxes per minute can be attained. The new *High Speed* machine is one that offers the user production speeds up to 110 finished boxes per minute. Both models employ the exclusive Brightwood method of high pressure forming which results in firmly-glued boxes that are unsurpassed for squareness and appearance. Write US for complete details.



the STANDARD BRIGHTWOOD
Forms hinged-cover, telescope, trays, tapered and one piece set-up boxes in a wide variety of sizes at speeds up to 60 per minute.

U. S. AUTOMATIC BOX MACHINERY CO., INC.

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Carton Sealing, Lining,
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WHEN SALES are at STAKE...

Like the makers of Tel-Tru Cutlery you, too, may have a packaging problem.

They solved it as may well be judged from this handsome package—six steak knives securely held in a beautiful plastic box.

And do they get attention! You can't help but gaze at them—and want them to try on a steak.

The body of the box is opaque plastic. The cover is transparent. Open or closed, this Vlchek Plastic Box sells the product—and it serves the product as well.

We—our packaging specialists—have worked with hundreds of companies making cutlery, hardware, cosmetics, foods, and many other products. We have helped them solve their packaging problems, and increase sales and profits—a plus value with Vlchek Plastic Boxes.

MAYBE THERE'S A BETTER WAY
OF PACKAGING YOUR PRODUCT

Let's Talk it Over!

In Many Sizes and Compartment Arrangements...
Economical in any Quantity

PLASTICS DIVISION
THE VLCHEK TOOL COMPANY
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A black and white photograph of a woman with dark hair pulled back in a bun, wearing a light-colored blouse. She is holding a baby in her arms, looking down at the baby with a gentle expression. The baby is wearing a light-colored onesie and has its hands clasped together.

*Quality is the First Consideration
...When a Baby is the Consumer!*

Ridgelo custom-made boxboard gives eye-catching quality to your products . . . and quality counts most when baby's welfare is at stake. That is why leading manufacturers of baby-care products have given preference to Ridgelo clay-coated boxboard, which is available in a wide variety of finishes and coatings. White, bright, and uniform, it is both easy and economical to print into fine folding cartons.



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THESE DAYS



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we have seen the horseless carriage

come a museum piece and the atomic

energy age a reality. We take great

pride in celebrating our anniversary and feel sure

that throughout our accomplishments

have made effort and acquired ex-

perience. Our future will not be that

of a museum piece, but of an ener-

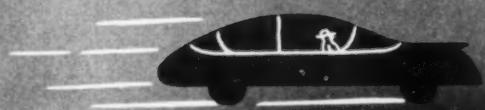
getic organization capable as always

to continue serving our patrons

Sincerely

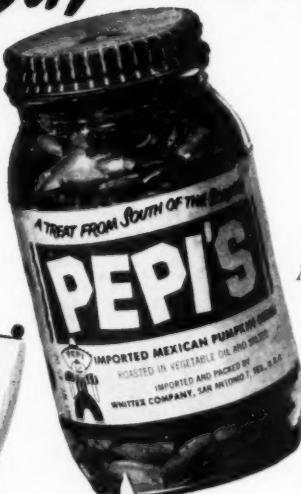
Olive Can Company

Chicago 12, Ill.



To 1952 Age

Try a treat from south of the border!



PEPI'S* roasted and salted Mexican pumpkin seeds are a new and unusual delicacy. They're delicious with cocktails . . . grand as a snack . . . wonderful for sparking up salads and soups.

From border to border . . . coast to coast . . . packers in ever-increasing numbers are calling on Crown to answer their closure needs. Crown maintains a Customer Service Laboratory which makes it possible to offer valuable help in the selection of the closure and liner best suited for your particular products. There is no cost or obligation for this service. Ask your Crown Closure Representative about it. Crown Cork & Seal Company, Baltimore 3, Md. *World's Largest Makers of Metal Closures.*

*PEPI'S Mexican Pumpkin Seeds are imported and packed by the WHITTEX Company, San Antonio 7, Texas. This colorful eye-catching package is sealed with the Crown Screw Cap with the famous Deep Hook Thread.

CROWN CLOSURES

Approved by millions of housewives

Meet four master salesmen



Have you a meat product you want to push in self-service meat departments? If so, Marathon can help you with a specialized package . . . perhaps one of the four master salesmen shown here . . .

Pick-Pak—made of Wonder White board that will not stain. Displays your bacon, your brand and your price to best advantage.

Look-Pak—sausage sales soar when packed in eye-appetite-appeal Look-Pak. Product and brand get clear visibility.

Wallet-Pak—for sausages and other processed meats. Protects and displays the product ideally. Stacks firmly! Easy to pack and price mark!

Wonder White Lard Cartons—made of Marathon's exclusive Wonder White board. Highly resistant to grease stains. Fresh, bright cartons sell lard faster.

Other Marathon packages include Kartridg-Pak for franks and margarine cartons. All made and designed to Marathon standards of top quality. See your Marathon representative or write Marathon Corporation, Menasha, Wisconsin.

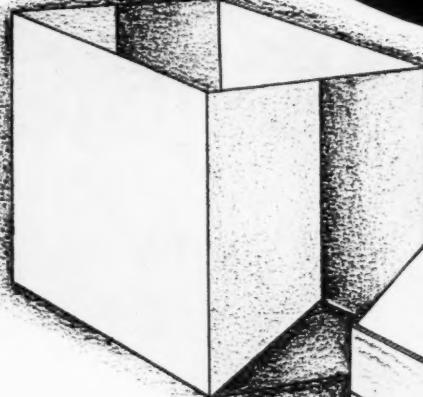


Visit our booth, 604-605, Supermarket Institute Convention, May 11-15, Cleveland Auditorium, Cleveland, Ohio

Marathon
packaging that sells food

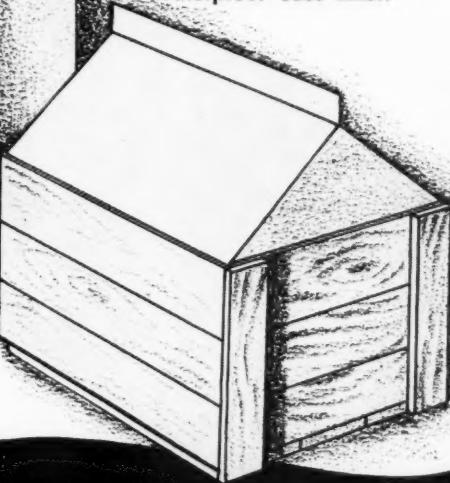
CASE LINERS. . .

Vanant Engineered TO MILITARY SPECIFICATIONS



Satchel Bottom Waterproof Case →
Liner Showing High Top Construction
In Style 4 Nailed Wood Box

← New Improved
Pouch Style Polyethylene Coated
Wet Strength Kraft Heat-Sealable
Waterproof Case Liner.



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VANANT PRODUCTS 730 W. Virginia St.,
Milwaukee, Wis. Plant Tomah, Wis.

Vanant Engineered Waterproof Case Liners are designed and produced to protect your product and meet requirements of Military Specification MIL-L-10547 (CmIC). Vanant Waterproof Case Liners are made from materials which meet the requirements of Military Specification JAN-P-125 and Federal Specification UU-P-271b.

We specialize in fabricating pouch style heat-sealable Waterproof Case Liners from 90-pound wet strength kraft paper coated with 2 mils of polyethylene.

Bags and pouches to meet the requirements of Military Specifications JAN-P-117, MIL-C-6056 (AN-C-67b) and MIL-E-6060 (AN-E-1b). Also bags and pouches made from materials meeting requirements of Military Specifications MIL-B-131A and MIL-B-7841 (AER) (AN-B-20).

SPECIFICATIONS HANDBOOK. How to preserve and package defense materials to military specifications. Write for your free copy. It's registered and automatically kept current.

VANANT

ENGINEERED PACKAGING

Converters of Military Specification

BAGS BARRIERS CASE LINERS

Polyethylene and
Other Transparent Films

**For clean, sharp,
color-rich
printing on
*Cellophane***



USE THIS FAMOUS COMBINATION



...the 100% pigmented ink for all aniline presses—with or without metered inking rolls. EXCELOPAKE is your best bet for maximum depth of color . . . hiding power . . . adhesion . . . fade-resistance . . . and printability because it is "tailor-made" to suit the specific type of cellophane you print and its end-use as a package or wrap. And, because it is specially formulated to dry fast without piling up on rollers and plates, EXCELOPAKE in the fountain means uniform coverage of solids, clean reproduction of fine type, higher running speeds and fewer stops for wash-up. Excellent on mileage, too.



For FREE "EXCELOPAKE INK COLOR GUIDE" contact your nearest BBD office . . . or write on your company letterhead to **BENSING BROS. & DEENEY**, 3301 Hunting Park Avenue, Philadelphia 29, Pa.



When you've got an aniline ink problem it takes an aniline ink specialist to solve it. And that's just what you get when you call for a BBD-man. His practical pressroom experience, backed by famous BBD aniline ink "know-how", is your assurance of the finest technical assistance when he rolls up his sleeves to tackle your problem right on the press.



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SALES COMPANY

World's Largest Makers of Aniline Ink

PHILADELPHIA • CHICAGO • WAKEFIELD, MASS.

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Export: MC LAURIN-JONES CO., New York

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RADO PACKAGES

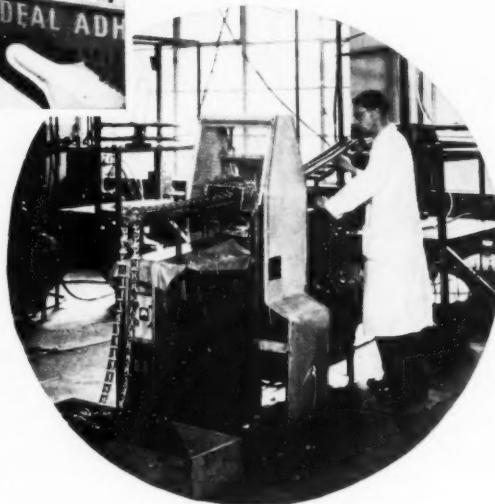
**OPEN
AMAZING
NEW
SALES
POSSIBILITIES**

RADO PACKAGES* are the sort of things Sales Managers and Marketing Directors dream of but rarely find—practical, radically new, low-cost packages that ideally lend themselves to all-out consumer promotion.

RADO PACKAGES are all plastic. They are made automatically and continuously from a wide range of thermoplastic materials, both clear and opaque. The packages are made and filled simultaneously and can be of regular or irregular shape.

Equally suitable for liquids or pastes, RADO PACKAGES can even be produced in the form of unique capless collapsible tubes which have self-sealing apertures.

If you feel your product could benefit from this *new type of packaging* that is novel, practical, low-cost and wonderfully responsive to consumer promotion, write to the Main Office of Technopol Laboratories, or to the Packaging Service Station nearest you for additional facts.



Type "A" Packaging Machine

*U.S.A. Patent Nos. 2,517,027, 2,530,400
British Patent Nos. 599174, 599183
Patented in 36 other countries. Other patents pending.

TECHNOPOL LABORATORIES LIMITED

Tel: London Wall 9452-9453 • 212 St. John Street, LONDON, E. C. 1, England • Cables: Telabor, London

Factories and Packaging Service Stations:

UNION OF SOUTH AFRICA
UNIVERSAL PLASTIC
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43/44, Menteith House,
Smith Street, DURBAN.

SWITZERLAND
GISIGER & CO.
Office: Claridenhof,
Dresdnerstrasse
21.
ZÜRICH. Tel:
(051) 27.24.47/
25.00.30.
Factory: Obfelden.

FRANCE
(Algiers, Tunis, Morocco)
S. E. P. (Société d'Emballages
Plastiques)
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des-Champs,
PARIS 6^e. Telephone
ODEON 71-33.
Factory: 24 Avenue de la
République, CHATOU,
France. Tel: 274.

AUSTRIA
Tupia Gesellschaft, Vienna,
IV., Wiedner Hauptstrasse 8
Telephone: A 34067

TECHNOPOL PACKAGING
SERVICES, 81/2 Aungier
Street,
DUBLIN. Tel. Dublin 58524.

BELGIUM
(Holland, Luxembourg, Belgian Congo)
S. E. P. (Société d'Expansion des
Matières Plastiques)
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lee,
(Onderbergen),
GAND.
Tel: 584.96.
Factory: 68-7 Rue de
l'Agrafe,
Anderlecht,
BRUSSELS.
Tel: 22.19.32.

Heard how C.I.* is a fountain of gold?

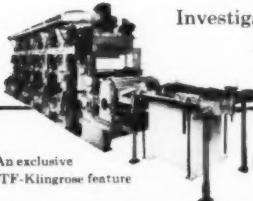
Perfectly inked cylinders are as good as gold when it comes to their value in achieving quality printing results. That's why C.I. (Cascade Inking) is so important. For C.I. assures uniformity in inking.

C.I. is an exclusive feature on ATF-Klingrose rotogravure presses whereby ink is pumped under pressure against baffles in the applicator. The ink then cascades in a curtain, by gravity, over the surface of the engraved cylinder. Thus splashing is eliminated, as well as air bells which leave minute un-inked areas.

C.I. is just one of the many exclusive features of ATF-Klingrose rotogravure presses that are helping open new fields in rotogravure printing. Multicolor presses such as the PA model shown here print up to eight colors at once, on one or both sides, and also print gold and metallic inks direct, for unusual and decorative effects for packages, labels, wraps, cover papers, and similar specialties at speeds up to six hundred feet a minute.

Investigate the complete line of ATF-Klingrose rotogravure presses.

AMERICAN TYPE FOUNDERS, *Klingrose Gravure Division*,
19 Rector Street, New York 6, New York.



*An exclusive
ATF-Klingrose feature

BETTER, MORE PROFITABLE PRINTING FROM THE WIDEST LINE OF PROCESSES
GRAVURE . . . LETTERPRESS . . . OFFSET

F. Hornaday Smith



Type faces shown are: *Century Bold*, *Century Schoolbook*



Tupper Seal, air and liquid-tight flexible covers fit, and are included in the sets of all Tupperware Canisters.



The Tupperware 50 oz. Canister is "standard equipped" with the Tupper Seal, air and liquid-tight flexible Pour All cover.



The Tupper Seal, air and liquid-tight flexible Pour All cover is used on every Tupperware 20 oz. Canister.



The Tupper Seal, air and liquid-tight, Pour All cover as a cover for 46 oz. cans; Tupperware Sauce Dishes and other containers of metal, glass or pottery. Foods easily dispensed without removing entire cover.



The Tupperware Wonder Bowls are usually fitted with Tupper Seal, air and liquid-tight covers.



Manufacturers of - CONSUMER, INDUSTRIAL, PACKAGING AND SCIENTIFIC PRODUCTS

FACTORIES: Farnumsville, Mass., and Cuero, Texas

ADDRESS ALL COMMUNICATIONS TO: Department MP-5



Argentine Patent 74,095 dated Dec. 14th, 1949
on invention covered by U.S. Patent 2,487,400
November 8, 1949. Canada Patent 463,387 Feb.
28th, 1950. Union of So. Africa Pat. 8,592 Sept.
21st, 1949. Belgium Pat. 491,293 Oct. 15th,
1949. Switzerland Patent 48,970 Sept. 23rd,
1949. Italy Patent 456,937 September 19th,
1949. Other U.S. and Foreign Patents Pending.

TUPPER! Seals

air and liquid-tight, flexible covers for Tupperware Tumblers, Canisters, Wonder Bowls, Cereal Bowls and many another container of glass, metal and pottery, the contents of which it is desired to keep fresh and wholesome.

TUPPER!

9th November, 1949

FORMAL NOTICE!

EXCLUSIVE!

U. S. Patent #2,487,400

The Tupper Corporation has attained a position of leadership in this industry by incurring great expense and expending painstaking effort in the development, design, manufacture and exploitation of its many world-known products.

The Tupper Corporation further has anticipated the inevitable attacks to which leadership is subject and has taken measures provided by law to preserve the creative rights to its products, methods and design by patent protection both in the United States and abroad.

Tupper Seals for Tupperware shown in this advertisement are just a few of the forms covered in this manner and are specifically covered by U.S. Patent #2,487,400.

Only the Tupper Corporation, by U.S. Patent #2,487,400 has the right to make, use and vend container closures in connection with any and all types of containers throughout the United States and its territories as covered by the claims of the Patent.

Tupper Corporation will protect, according to law, the exclusive rights above granted

TUPPER CORPORATION

TUPPER CORPORATION

Manufacturers of - CONSUMER, INDUSTRIAL, PACKAGING AND SCIENTIFIC PRODUCTS

New York Show Rooms 225 Fifth Ave.

COPYRIGHT TUPPER CORPORATION 1950



There's a Tupper Seal, air and liquid-tight flexible cover for Tupperware 2, 5, 8 and 12½ oz. Tumblers too, and these Tupper Seal, covers fit many other containers of metal, glass and crockery.

The Tupper Seal, air and liquid-tight flexible Por Top cover, specially designed as a dispensing cover for specified diameters of containers holding foods such as syrup, salad dressings, catsup.



The cover of the Tupperware Bread Server which serves as a bread tray also is designed to give similar results as Tupper Seal, air and liquid-tight Flexible covers. Keeps contents fresh as no other such container.



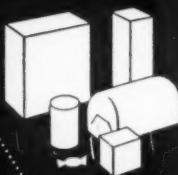
When equipped with Tupper Seal, air and liquid-tight, flexible covers, Tupperware Cereal Bowls serve many another purpose.



The Tupper Seal, air and liquid-tight flexible cover made for Tupperware 8 oz. Tumblers also fits and is sold with all Tupperware Funnels as a base when funnels are used as storage containers.

A HALF CENTURY OF SERVICE

NEWARK
PACKAGING
PROTECTS
YOUR PRODUCT
PROMOTES
YOUR PRODUCT
GOOD WILL



Whether your needs are large or small . . . our half century of know-how . . . our research department . . . our art and engineering staffs . . . are at your service to help solve your packaging problems . . . without obligation.

QUALITY Integrated production—
our own paper mill gives Quality
Control at the source, which
guarantees Uniformity.

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- LAMINATED ALUMINUM FOIL
- BARRIER MATERIALS
- ROLLS
- SHEETS
- BAGS



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50 JELLIFF AVENUE, NEWARK 8, N. J. • MILLS AT NEWARK, N. J. and PITTSSTON, PA.

**CUT
DOWN
ON
BREAKAGE**



...with tailor-made **Riegel papers**

*A few things RIEGEL
can do for you . . .*

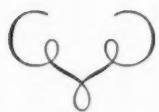
- Keep products dry
- Keep products moist
- Retard rancidity
- Seal with heat or glue
- Provide wet strength
- Stop grease penetration
- Retain aromas, flavors
- Resist extreme cold
- Reduce breakage
- Prevent sifting
- Protect from light
- Resist alkalies
- Resist corrosion
- Boost machine efficiency

LINERS of corrugated glassine or greaseproof are widely used to reduce breakage . . . and at the same time provide grease resistance or other functional properties. Reducing breakage is a problem Riegel has helped to solve for products that range from candy and cookies to aeroplane parts. For your products, we may already have just the right paper . . . or perhaps we can find a better answer in something entirely new. Whatever the problem, we can usually meet your requirements . . . quickly, efficiently, economically. Just tell us what you want paper to do for you. Write to Riegel Paper Corporation, P. O. Box 170, Grand Central Station, New York 17, N. Y.

Riegel

FUNCTIONAL PAPERS FOR PROTECTIVE PACKAGING

► WRITE FOR SAMPLE BOOK



people want
Fine
Paper Boxes



Rowell
makes
them



COSMETIC BOXES



PREScription BOXES



E.N. Rowell Co., Inc.
Manufacturers of Fine Paper Boxes
BATAVIA, N.Y.

WHISKIES THE U. S. DRANK
IN 1951; BRAND BY BRAND*

Rank	Brand	Cases Sold (est.) 1951
1	Seagram's 7 Crown	9,600,000
2	Calvert Reserve	3,600,000
3	Schenley Reserve	3,300,000
4	Corby's Reserve	2,700,000
5	Imperial	2,650,000
6	PM DeLuxe	1,600,000
7	Four Roses	1,500,000
8	Carstairs White Seal	1,400,000
9	Paul Jones	1,350,000
10	Old Sunny Brook	1,270,000
11	Cream of Kentucky	1,250,000
12	Old Stagg	1,200,000
13	Seagram's V.O.	1,150,000
14	Early Times	1,000,000
15	Fleischmann's Pfd.	950,000
16	Canadian Club	910,000
17	Park & Tilford Reserve	800,000
18	Hunter	770,000
19	Old Thompson	700,000
20	Good Old Guckenheimer	684,000
21	Echo Springs	680,000
22	Old Charter	620,000
23	Old Sunny Brook	610,000
24	Hill & Hill (BLEND)	600,000
25	Hill & Hill (STRAIGHT)	575,000

* Reprinted through courtesy of
BUSINESS WEEK

Right: BEE-LINE Model 135 with twin labeling stations turns out up to 120 neatly labeled bottles per minute. BEE-LINE gives you a choice of 4 Models to fit your production needs and meet your range of glass containers and label shapes and sizes. Ask us for recommendations, layouts and estimates.

"Repeat Orders are surest evidence
of Satisfaction"

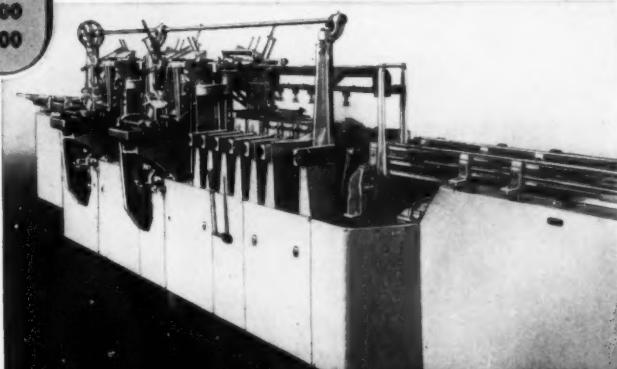


YOU'RE IN GOOD COMPANY
WHEN YOU USE

WORLD BEE-LINE LABELERS

24 out of 25

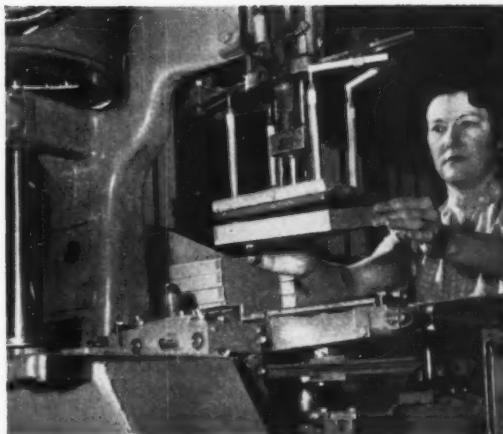
of these leading Brands are labeled on WORLD BEE-LINE LABELERS! Bottles labeled on the BEE-LINE have clean, neat, precisely positioned front and back body labels, neck labels, shoulder labels and/or medallions . . . 24 excellent reasons why you too should consider the BEE-LINE for better packaging, smoother production, and lower operating costs.



WORLD BEE-LINE
LABELERS

WORCESTER 5, MASSACHUSETTS
400-420 South Main Street

*The Inside Story
of
Paper Box Production*



MACHINEmark, HANDwork . . . and brainwork!

Intricate machines, so artfully designed that they almost seem to think for themselves, have helped tremendously to step up the speed of paper box production.

But the touch of skilled fingers, in many operations, is still essential in safeguarding quality of production.

It takes ingenuity to combine MACHINEmark and HANDwork in the right proportions to produce boxes that will serve your needs . . . at prices that will meet budget requirements.

We have the machines, the skilled hands, the ingenuity . . . and we'd like to show how well the combination can work for you. Using the coupon opposite will mean no obligation; and there's an excellent chance that it will lead to a better solution to your packaging problems.



**WALTER P. MILLER CO., INC.
452 York Avenue, Philadelphia 23, Pa.**

We'd like to talk packaging with your representative. Better have him call ahead of time for an appointment.

Name.....

Company Name.....

Address.....

City..... Zone... State.....

Designers and manufacturers of SET-UP PAPER BOXES

MAYBE!

I'LL TRY!
WAIT!



I'LL SEE!

Perhaps!

Maybe!

MAYBE!

MAYBE Doesn't Work at Heekin's!



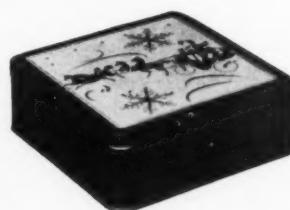
TO MEET today's competition, you can't rely on guess work to sell your product. Regardless of how large or small your sales . . . your product must compete with others on the shelf . . . and that means attractive, colorful, distinctive packaging. Heekin, with more than 50 years of lithographed metal packaging experience in all fields of products, can give you the benefits of years of "Know How" . . . and you get your answers direct, concise and quick. Let Heekin help take the guess work out of your packaging problems.



HEEKIN Lithographed CANS



THE HEEKIN CAN CO.,
PLANTS AT CINCINNATI & NORWOOD, OHIO; CHESTNUT HILL, TENNESSEE; SPRINGDALE, ARKANSAS



Big Advance in Cushioned Packaging!

"SPEED-RAP"

The corrugated board
with the wider kraft liner
... now in rolls!

GET THE FACTS!
A free sample of "Speed-Rap" plus full details and
prices are yours for the asking. Write today!

Two or three handy rolls of "Speed-Rap" in standard widths take the place of large inventories of cut-to-size sheets.

Space saving "Speed-Rap" rolls can be mounted beneath the work table and cut to length as needed. A simple metal former opens the paper flaps automatically . . . readies "Speed-Rap" for immediate use.

"Speed-Rap" won't knock holes in your packaging budget. It actually saves you money; helps you make neater, less bulky packages . . . faster.

CUSTOM LAMINATING AND COATING

We combine plastics, fabrics, foils and paper for functional and decorative purposes, including heat-sealing foil, jar cap liner stock, electrical insulation, aluminum foil and paper or board, and other made-to-order products.

MILITARY PACKAGING MATERIALS

We manufacture a complete line of barrier materials covering packaging specifications, including

MIL-B-131A
MIL-C-6056

JAN-P-117
MIL-E-6060

JAN-B-121
AN-B-20



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BEDFORD, OHIO

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DENVER, DETROIT, FT. WORTH, LOS ANGELES,
NEW YORK, PORTLAND, SEATTLE, WICHITA



Square pegs
wonderfully
packaged in
round holes

If your product is normally made for civilian use . . . using the same packaging for your DO's may be putting a very square peg in a round hole. *Defense packaging needs attention!* And that's where Visqueen* film comes in! Visqueen can improve your DO packaging without extra cost; possibly even at farless cost.

Visqueen has a flexibility needed for odd shapes and sizes. It gives longer "shelf life," greater protection. Visqueen is pure, tasteless, odorless and chemically inert. Pliable at extremely low temperatures—crackproof and waterproof. *Visqueen has an unusually high uniformity of gauge.*

It's possible that Visqueen film may be available shortly for your civilian packaging, too! In that case, Visking's wide experience with film can certainly benefit you. Visqueen will be pleased to offer advice on methods of handling, packaging line layout and types of film . . . for both military and civilian packaging. Go ahead—*Call on Visqueen!*

IMPORTANT! Visqueen film is all polyethylene, but not all polyethylene is Visqueen. Visqueen is the only film produced by process of U.S. Patent No. 2461975. Only Visqueen has the benefit of research and extensive technical experience of The Visking Corporation, pioneers in the development of polyethylene film.

Visqueen Packaging Firsts!

- liquid and dry chemicals and pharmaceuticals in drums, cartons and cases.
- weather balloons for armed forces
- bags for batteries for armed forces
- packaging of small machine parts (for moisture protection)
- rubber separators (as in camelback)
- liners for multi-walled bags
- bags for pre-peeled potatoes
- sterling silver flatware and hollow ware (as tarnish resistor)
- bags for poultry

VISQUEEN*
film

... a product of THE **VISKING** CORPORATION • Preston Division, Terre Haute, Indiana

*T.M. The Visking Corporation

In Canada: Visking Limited, Lindsay, Ontario

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Save



Many banking institutions, like the Society for Savings in the City of Cleveland, furnish such convenient banks to their depositors for an easier way to save those elusive coins. Ideal, too, to save for church or charity appeals.

THE USE OF CLEVELAND CONTAINERS IS ANOTHER WAY TO SAVE in packaging endless products.

You obtain flexibility in packing; shipping at lower costs; individuality in new, eye-compelling designs; protection against careless handling.

FAST PRODUCTION FACILITIES . . . PROMPT DELIVERIES . . .
FROM OUR STRATEGICALLY LOCATED PLANTS.

Send for our latest literature . . . full of money-saving suggestions.

The CLEVELAND CONTAINER Co.

6201 BARBERTON AVE. CLEVELAND 2, OHIO

- All-Fibre Cans • Combination Metal and Paper Cans
- Spirally Wound Tubes and Cores for all Purposes

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REPUBLIC ALUMINUM FOIL PROCESSES ECONOMICALLY

Republic makes high quality aluminum foil that works well with production equipment. Straight, clean edges, accurate gage, uniform strength are all important . . . Add to these an understanding of the abilities and limitations of the machines on which it will be processed and in Republic foil you have a product that gives maximum performance with a minimum of down time.

REPUBLIC FOIL & METAL MILLS
INCORPORATED
DANBURY CONNECTICUT

BRANCH SALES OFFICES: 209 W. Jackson Blvd., Chicago 6, Ill.
666 Mission St., San Francisco 5, Calif.

REPUBLIC FOIL & METAL MILLS, INC.



SALES IN DRUGSTORES ARE EXPANDING



One of the more conspicuous developments in retailing in recent years has been the addition of new lines by drugstores. This taking on of types of goods not ordinarily regarded as drugstore items explains in part the huge growth in over-all drugstore sales. Counting everything—drugs, sundries, cosmetics, toys, 25c books, tobacco, soda fountain—sales jumped from around 1½ billion dollars in 1940 to more than 3½ billions in 1950. And the bulk of the assorted merchandise involved went to market in corrugated cases.

As a matter of fact, this increase in drugstore business has gone hand in hand with an increase in the use of MEAD .009 Chestnut Corrugating and MEAD Liner. Both have long been noted for their contribution to safe and thrifty packaging. Thanks to generous employment of chestnut and other hardwood fibers, MEAD Board provides the combination of lightness-with-strength that shippers must have today.

Mead Board is sold direct by
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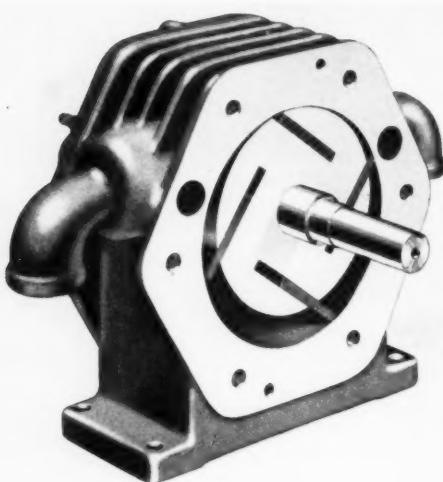
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Here, at last, is a pump that's clean, efficient, never needs oiling, requires no attention . . . and delivers all the vacuum and all the blast you need.

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The VANES — of carbon-graphite alloy — operate with a minimum of friction, are long-lived and become increasingly efficient in service.

The PUMP is precision built, with close tolerances. Has no seals or gaskets to leak or blow. Runs cool—and is backed by Dexter engineering service.

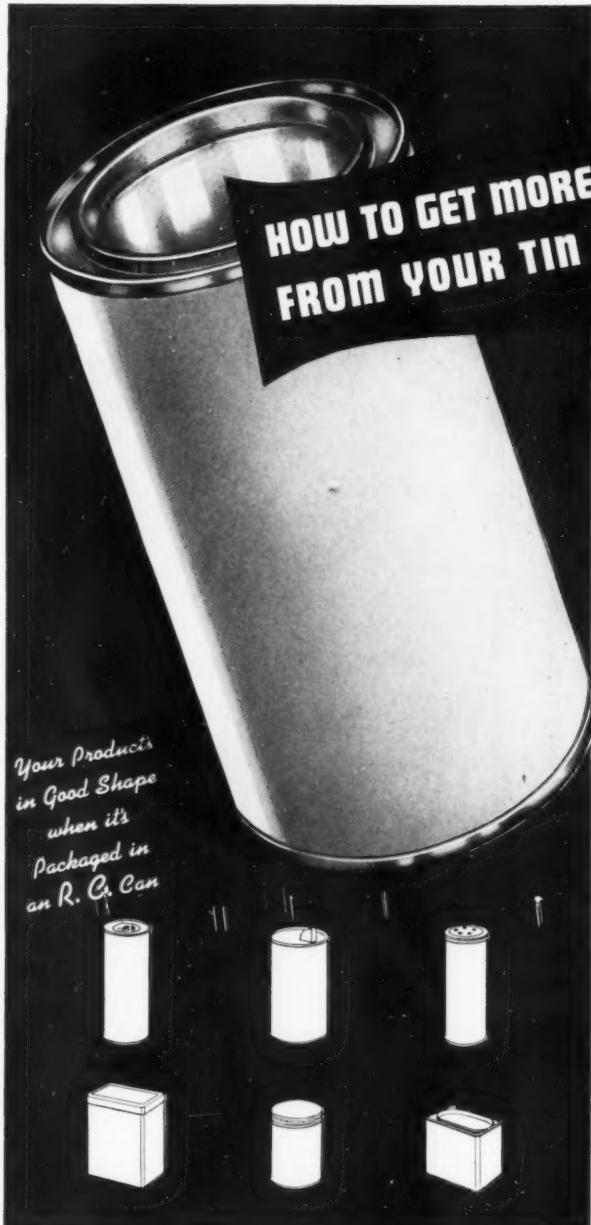
Built in several sizes — to deliver what your machines require.

We will be glad to study your pump problem and make recommendations. Write for literature.

Dexter Folder Company *General Sales Offices*

330 West 42nd Street

New York 36, N.Y.



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Your Four-Star Answer
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★ **STRONG.** Durability is one of the pre-requisites of every R. C.-designed container. Asphalt-impregnated and paraffin-lined containers are only two examples of the thorough product protection offered by R. C. Packaging.

★ **COMPLETE VARIETY OF SHAPES AND SIZES.**

★ **FAST, DEPENDABLE DELIVERY.** Free from the production headaches attending material cutbacks. Four factories to serve you.

★ **LOWER COST.** In spite of these assets for smart-looking, up-to-date packaging, R. C. containers cost less to produce, less to ship.

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For performance on your production lines; for smartness on the package; for competitive prices and prompt delivery call, write or wire our Plastic Division, Bernardin Bottle Cap Co., Inc., Evansville, Indiana.

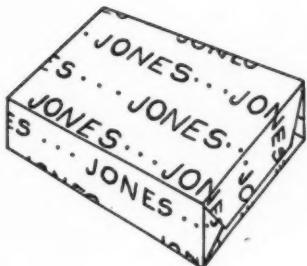
Founded 1881

ALL SIZES, ALL COLORS, ALL UNIFORM—

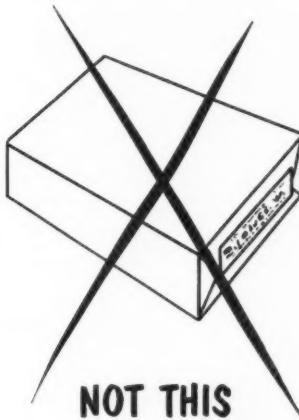
BERNARDIN
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HIGH COSTS of buying and applying end labels can be eliminated in your bundling operation. These savings are possible through the use of WHITEFORD over-all printed bundling paper.

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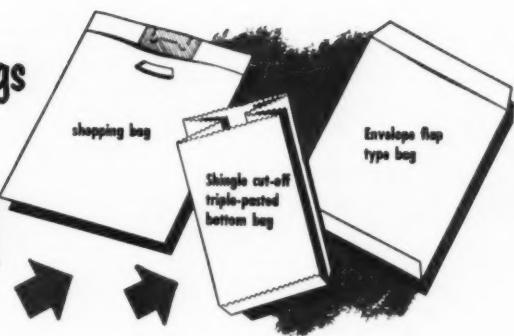
Whenever you need fine Cans for any use, consult Crown's Complete Line. As exemplified by SPRA-TAINER, Crown Cans are your surest guide to Progressive Packaging. You Can't Buy Better Cans!



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One of America's Largest Can Manufacturers • Plants at Philadelphia, Chicago, Orlando • Branch Offices: New York, Baltimore, Pittsburgh, St. Louis

NOW you can make these bags
on the new
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THE MOST VERSATILE BAG MACHINE EVER BUILT . . .

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Precision-built mechanism . . . trouble-free and very simple to operate or adjust. Produces bags at a rate of 1200 per minute . . . up to 400,000 per day! Investigate this "Glutton" for work. It's a real money-maker and worthy of your consideration.

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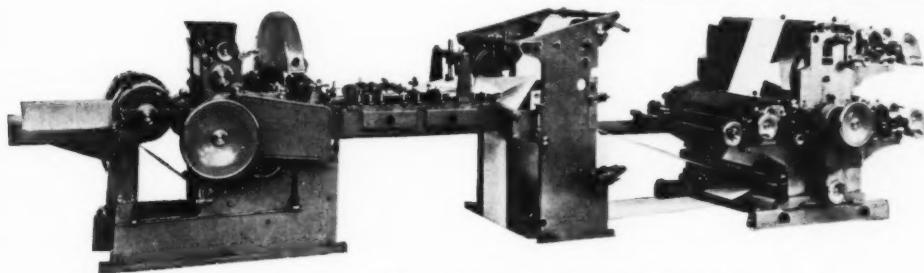


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MATADOR ADVANTAGES THAT
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Positive tension control, Driven Seam Paster, Precision Grippers, One-shot oiling system . . . many others

**MATADOR LETS YOU
CHANGE BAG SIZES IN
A MATTER OF MINUTES**

MATADOR 26	2 to 10 1/4 wide
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MATADOR 31	2 to 12 1/2 wide
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	7 1/2 to 30 3/4 tube length



Write for brochure giving 15 illustrated reasons why the MATADOR can do a better job in your plant.



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WHATEVER special qualities you need in paper for packaging—whether it's paper to provide greater flavor protection, strengthen dimensional stability, improve moisture resistance, or otherwise help increase the salability of the product—you'll find Brown Company's Technical Service Division of real help.

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Write Dept. DR-5 at our Boston office.

Our entire production of papers is sold directly to converters.

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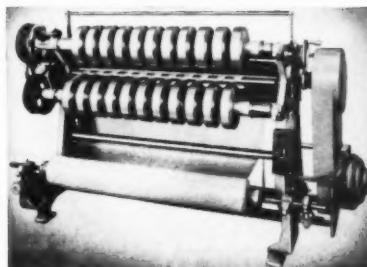
General Sales Offices: 150 Causeway St., Boston 14, Mass.—Dominion Square Bldg., Montreal, Quebec

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**for rolls any widths . . .
you're "slitting pretty"**



**a BECK Razor Blade
SLITTER
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REWINDER**



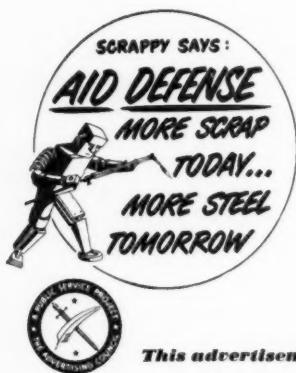
Take a load off your budget with this accurate, economical producer. Every feature engineered to meet all the varying conditions you might encounter in slitting all types of films . . . cellophane, acetate, plastic, foil laminates and a tremendous variety of fine materials. Simple to set up. Easily changed razor blades. Handles any width . . . and provides perfect control from parent roll to rewind. Want information? The words "SLITTER" and "Modern Packaging" on your letterhead brings it.

CHARLES BECK CORPORATION
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This advertisement is a contribution, in the national interest, by

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Right now, more iron and steel *scrap* is needed than ever before to help maintain steel production. Lack of enough scrap—which normally represents 50% of the ingredients used in making new steel—would seriously hamper the nation in this critical period.

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For your copy, write to Advertising Council, 25 West 45 Street, New York 19, New York



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HARDWARE DIVISION

First Prize!

1952 NATIONAL CARTON COMPETITION

FOLDING PAPER BOX ASSOCIATION OF AMERICA



Awarded UNITED BOARD & CARTON CORPORATION FOR ENGINEERING AND PRODUCTION OF WESCO CARTONS.

● SUPERB PACKAGING PLUS SOUND MERCHANDISING makes WESCO'S Sundry Merchantiser one of the outstanding 1952 success stories in the paint industry.

Complete production facilities from paper board mills to the finished, successful selling carton, make UNITED one of the nation's outstanding carton manufacturers.



UNITED BOARD & CARTON CORPORATION

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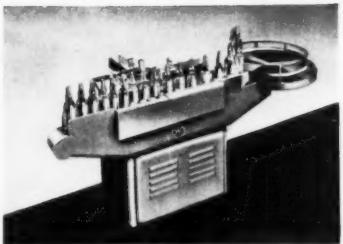
PAPERBOARD MILLS
LOCKPORT & THOMSON, N. Y.
URBANA, OHIO

FOLDING CARTON PLANTS
SYRACUSE, VICTORY MILLS, N. Y.
SPRINGFIELD, OHIO

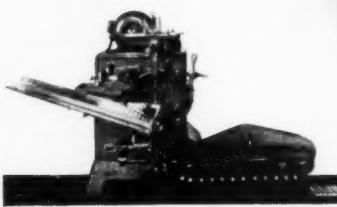
LAMINATING PLANT
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NEW YORK

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the name that means the finest
bottle and package labelling equipment



"BLITZ" A high speed unit for applying body labels to round bottles, jars and similar cylindrical objects. Output: Model I—150 per minute, Model II—250 per minute.



"BENCHPRESTO" The foremost production machine for automatically labelling such small cylindrical articles as tubes, ampoules, crayons and batteries. Output: up to 55 per minute.

Reliability, compact construction, superior production rates and a minimum of package breakage and other stoppages have created a worldwide reputation for excellence for the package labelling equipment designed and built by Jagenberg-Werke A. G., Dusseldorf (West Zone), Germany.

These machines are available through Alfred Hofmann & Co., sole U. S. distributor, who provides nationwide service and stocks all necessary spare parts for quick delivery.

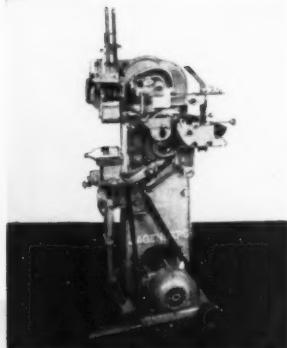
The outstanding performance of Hofmann's low-cost Jagenberg bottle and package labelling equipment merits your further investigation. Write for particulars. Alfred Hofmann & Co. Showroom and Offices: 635 59th Street, West New York, New Jersey.

All **JAGENBERGS** Feature
"Full Surface Glueing"

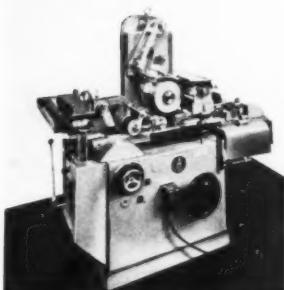
Jagenberg "peel-action" glue application places a thin, even film of glue over the entire surface of each label. Long experience proves this system yields superior adhesion, and easier wash-off when bottles are re-used.

Type III	Blitz	R.E.A.	Benchpresto
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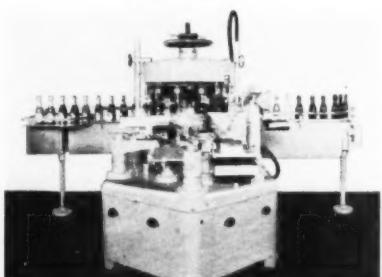
These machines, the hits of the Packaging Show, are now available for your inspection at our showroom in West New York, N. J.



"TYPE III" Versatile universal semi-automatic machine for labeling bottles, jars and flat packages. Applies labels of any shape. Occupies only 20" x 24" space. Output: up to 35 per minute.



"R.E.A." Boxes, rigid and soft packages, jars and bottles can be labelled automatically by the "R.E.A." It applies top and body labels, band labels, all around labels and will even apply labels to 2, 3 or 4 sides. Output: up to 120 per minute.



"NOVO-TEMPO" Specially designed for building into high-speed bottling lines. Operates with continuous rotary motion for greatest efficiency. Applies body, breast, strip, neck and closure seal labels in perfect register. Output: 6,000-8,000 per hour.

ALFRED HOFMANN & CO.

Sole U.S. Sales and Service Agents for Jagenberg Labelling and Packaging Machines

Concinnity...

"Skillfully put together — mutual
adaptation of parts — elegance"

Webster's definition of CONCINNITY
so aptly describes packaging by . . .



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FOLDING CARTONS—HAND MADE OR MACHINE MADE SETUP BOXES
TRANSPARENT ACETATE BOXES—COUNTER DISPLAY BOXES

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*Accent
Your Product's
Appeal*

Give your package the prominence it deserves. For outstanding *impression packaging* at the point of sale, use Nashua's Velour Papers. A few samples will show you exactly what we mean.

NASHUA CORPORATION

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Creative Packaging in
Printed Film, Waxed Wrappers,
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Gummmed Papers, Printed Bands,
Heat Seal Papers, Flocked Products,
Party Papers, Corrugator's Tape,
Sealing Tape, Moistening Machines,
Technical Paper Products.

VOLUME 25

NUMBER 9

MAY 1952

Modern packaging

1952 *Gift trends*

EASING OF MATERIALS SUPPLY SITUATION OPENS

THE FLOODGATE OF IDEAS FOR THE KIND OF PACKAGING
THAT DEPENDS PRIMARILY ON EYE APPEAL

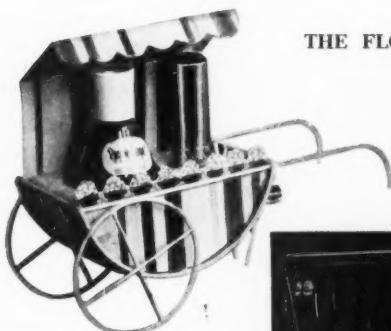
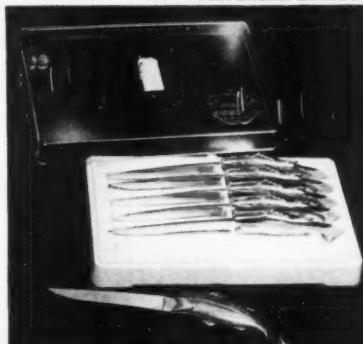


PHOTO COURTESY MONSANTO CHEMICAL CO.

NOVELTY appeal is exemplified by Peggy Sage Paris flower cart tying in with a spring color promotion plan.

RE-USE and visibility of product are provided by this handsome molded polystyrene case for fish and game knives.



DISPLAY packages have become an essential for jewelry. D'Eri case of hinged steel is velvet covered.



PHOTO COURTESY P. H. NOBLE & CO., INC.



STORE BOXES demand dramatic treatment. Peck & Peck's last year's boxes carried illustrations by cartoonist Ludwig Bemelmans.

More than ever, gift packaging is an integral part of the merchandising programs in hundreds of fields from foods to fishing tackle, from liquor to layettes, from candy to cutlery.

Gift purchases are largely impuls



SOFT-GOODS LINES DEMAND YEAR-ROUND APPEAL

REDESIGNED packages which add color and nursery motif immediately increased sales of Swan Knit and Aldens layettes.

WINNER in Philadelphia Art Directors' competition was this year-around gift set of Fieldcrest guest towels.

TRAY PACK overwrapped with Pliofilm enlarges the market for gift selling of Cabin Crafts, Inc., bath sets.

COUTURIER packaging of luxury hosiery promotes gift sales through famous name appeal. Lanvin packages stockings with flacon of perfume.



GIFT FOLDERS, gaily designed, add seasonal interest to standard hosiery packages.



business and retailers have become so conscious of attractive packaging that it is increasingly difficult to interest a store buyer in a line of goods with gift potentials unless the staple package is designed with gift appeal. Retailers are continually looking for items that will sell themselves and a packaged product ready for sale as a gift saves time and cuts overhead.

A study made recently for a large producer of folding cartons showed that 90% of all liquor dealers felt there was a definite advantage to them in the distribution by liquor manufacturers of gift cartons and one out of three dealers believed that the gift carton should be supplied the year around for its selling impetus, its advantage in sharpening brand preferences and in offering display advantages.*

Probably no other category of packaging offers such wide opportunity for diversity or for new ideas as that of gift packaging. Attractiveness and novelty are essential to win the shopper's eye and to direct attention to your product among competitors. There are as many ways to achieve this attention as there are packaging materials to provide the distinctive appearance.

How they are selected and used depends upon the requirements of the package. In some instances distinction may depend primarily on color combinations. In others the requirement will be visibility of the product through a transparent package. The success of still other packages will depend almost solely on design plus brand emphasis, as in the case of cigarette and liquor cartons. A package tie-in with a special promotion is essential to the merchandising of nail-polish and lipstick shades, or assortments of candies. Re-use appeal of the package is a strong selling point for many molded plastic containers. Sometimes the appeal may be pure gadgetry, as exemplified by the toy packages for soap sculptures.

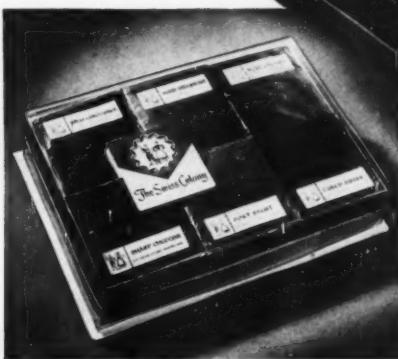
Each year among the most eagerly watched packages are the cosmetic collections. While variety and novelty are still the bulwark of this industry's packaging, emphasis continues to be on popular-priced units. In cooperation with the program of the Fragrance Foundation to promote wider use of fragrance products, many of the prestige perfumery houses are

* Study made by Advertest Research for Lord Baltimore Press.



COMPLETE PROGRAM FOR CHEESES

GOURMET ITEMS must look good. The Swiss Colony which sells a line of food specialties has adopted the most extensive decorative program for gift merchandising. Cheeses are all aluminum foil wrapped and identified with appealing labels. Assortments are packaged in tooled-leather boxes along with checker-board, checkers, cards and dice; also in a set-up box with a transparent cover. The design theme carries through to corrugated mailers and labels.



PHOTOS COURTESY RAYMOND LOEWY ASSOCIATES.

packaging their expensive scents in smaller units—but using the finest of packaging materials—custom-designed papers for box wraps and private-mold glass bottles and closures. This activity has also started a trend for the many attractive put-ups of purse dispensers. The old-fashioned gift-set box, containing an assortment of products, is fast becoming extinct in the cosmetic field. Even the firms most widely known for this kind of gift packaging gradually have abandoned them in favor of smaller units, such as sampler collections of favorite scents—cologne with bath powder, or solid colognes packaged separately.

There is also a trend in the cosmetic field to novelty promotions which can be tied in with a product name or a

lipstick and nail-polish color. An example is Peggy Sage's current "Proud Beauty," a lipstick and nail-polish shade which has been packaged in a miniature Parisian flower cart constructed of white wire with gay striped awning top and platform of polystyrene foam fabricated to hold the bottle of polish and lipstick case.

Prince Matchabelli originated a clever counter promotion for Spring Garden fragrances by designing a miniature picket fence on which were attached 1½-dram purse dispensers of its four most popular Matchabelli scents, each with its own individual bouquet of hand-detailed spring flowers. Tied in with a message, "Pick a Perfume from a Picket Fence," the promotion was an effective way to win

counter attention at a moderate packaging cost—something all gift packagers are seeking.

Polystyrene foam is continuing to find new uses in toiletries packaging. Interesting examples are the attractive put-ups for Quettes, compressed wash cloths for travel. The product is one which demands dramatizing at the point of sale. Placed in cylindrical transparent acetate containers and paper banded to specially fabricated polystyrene foam pieces, ribbon decorated, the compressed wash cloths make excellent impulse items for the shopper looking for a bon-voyage remembrance.

Men's toiletries are being given renewed attention and one sees new promotions of Schiaparelli's elegantly

GIFT CERTIFICATES

CLEVER IDEAS are needed for promoting the sale of a gift certificate. Candle package of acetate showing a pair of legs accompanies an attached certificate for hose. Cone-shaped package contains a certificate for a Gilead Bra-Slip.



PHOTO COURTESY SHAW-RENDALL CO., INC.

packaged Snuff line, including masculine-looking staple items along with a famous gadget item—perfume in a pipe-shaped bottle housed in a simulated cigar box.

A newcomer among the men's lines is Tussy, with packaging comprised of red set-up boxes and hand-some monogrammed lettering hot-die stamped and embossed in gold. The bottle labels are correspondingly treated.

Jewelry

A field that has moved up near the top in gift packaging is jewelry. The success of decorative display con-

tainers for watch bands and watches has spread to all manner of jewelry items for both men and women. And the jewelry trade has made use of almost all of the gift-packaging materials: elaborately covered set-up boxes of paper and metal construction, molded plastics and fabricated boxes of transparent materials. The effectiveness of the display package supplied by the manufacturer of the jewelry has become so important that even the more-popular-priced lines are now being gift packaged.

This year a clever new inexpensive idea for packaging pins, cuff links and earrings—items that have previously

been carded—is being suggested for many purposes. It consists of a patented method for affixing to a card a formed transparent acetate piece through which the item is visible.* This package construction offers many attractive possibilities by the use of brilliantly colored foil-laminated board for the cards or attractively printed cards which become an integral part of the unit, such as tie clips under the transparent formed pieces attached to cards on which a necklace is represented, or lapel pins on cards designed to represent a coat lapel, etc.

There are also many possibilities for boxing children's jewelry in keeping with the product such as U. S. Time Corp.'s "Alice In Wonderland" watch in a box on which the Disney characters are represented.

Foods

The growth of food-specialty departments in stores, the increased interest in gourmet shops in big cities and the number of mail-order firms specializing in food items such as fruits, cheese and smoked meats demand new ideas in gift packaging.

For food departments in stores, the packages must be impulse items—attractive assortments of jams and jellies, cookies, cakes, glacé fruits, nuts, meats, cheeses, etc.—in put-ups that will stop the casual shopper at all times of the year. Widely used in these fields are cleverly designed box wraps, novel metal containers, hand-packed assortments in boxes or baskets cleverly designed for eye and appetite appeal.

Equally important in appeal must be the mail-order items which can be colorfully pictured in catalogs and which will arrive in the hands of the recipient as attractive as they look in the pictures. Outstanding packaging of this type is being done by Southern and Western fruit growers through the use of colorful boxes and baskets, often with many items foil wrapped, or with a pouff of ribbon or a sprig of flowers or leaves to give added color and distinctiveness.

Among the most extensive gift-packaging programs for cheeses during the past year is that of the Swiss Colony at Monroe, Wis. This firm employed one of the country's top-notch designers to develop a completely co-ordinated program of packaging for

* See "Transparent Carding," MODERN PACKAGING, March, 1952, p. 200.



PHOTO COURTESY FRANK GIANNINO.

PHOTO COURTESY ROBERT BAIR CO., INC.



cheese and canned game specialties.

The cheeses are all individually foil wrapped and identified with decorative trademarked labels in keeping with the specialty character of the house. Assortments are packed beautifully in tooled-leather boxes with checker-boards attached to the inside covers. In addition to the cheeses, the boxes contain playing cards, checkers, dice and other game accessories. The design program for the packaging is tied up with a trade symbol of a Swiss couple which appears on all stationery, gift cards, insert literature, etc. The design theme carries right through to corrugated shipping containers and mailing labels. Swiss Colony has also made use of a sturdy set-up box with a transparent acetate cover for an assortment of cheeses, giving visibility to the colorful foil-wrapped varieties and labels.

An interesting development in the packaging of fruit cakes is a decorative round metal cake box with specially processed surface that permits baking right in the box. Marshall Field & Co. is using these containers for private-brand fruit cake and the same type of container is being used by various grocery chains. The containers may be obtained with stock designs or may be specially designed, if desired, when quantity makes this economically feasible.

Flexible wraps are in evidence for decorative packages of hams, poultry, as well as other specialty food items, many of them with seasonal interest, others with year-around appeal.

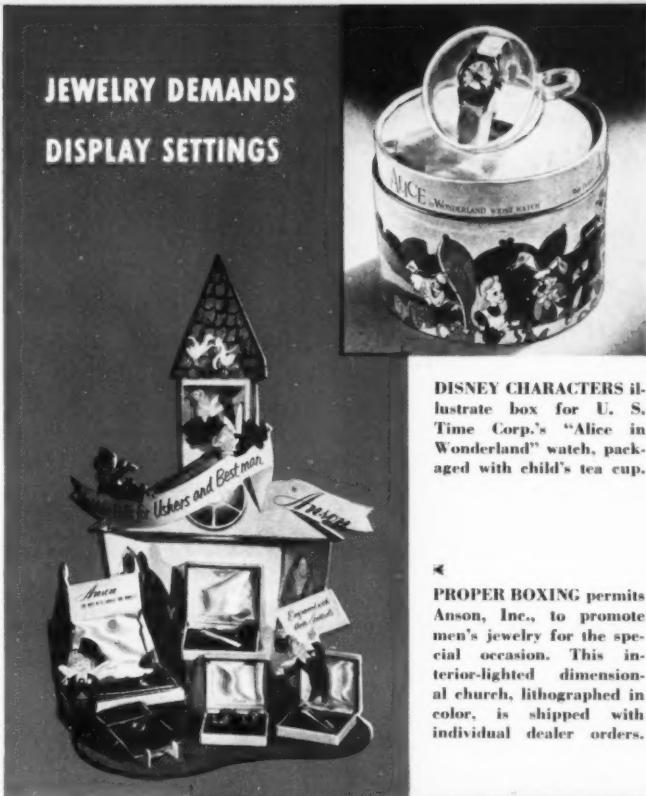
An interesting package for shipping gift eggs to Europe was announced by the Gristede Bon Voyage shop in New York. It appeared to be a reinforced corrugated carton, equipped with 24 square compartments, each larger than an egg by half an inch. Stretched over the partitions was a sheet of transparent film with just enough "give" to allow each egg to nest into place. (Gristede would not say what material.) A second sheet of the transparent material covered the top half of the carton, also made with corresponding partitions. When the halves of the box are closed down, the eggs are nested above and below, and the swinging effect of the plastic film is reported to prevent breakage.

Soft goods

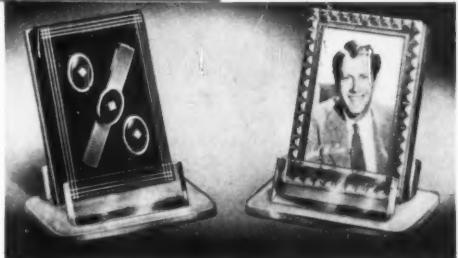
In soft-goods lines, staple packaging is being combined most successfully with decorating treatment to pro-

JEWELRY DEMANDS DISPLAY SETTINGS

PHOTO COURTESY RENNISON-PRENNEN CO., INC.



TRIPLE - PURPOSE
unit is this Jacques Kreisler package—
display, gift box
and re-use picture
frame all in one. One
side is plush setting
for jewelry; the other,
a picture frame.



vide added impulse appeal for gift giving. Hosiery, particularly the couturier lines, is being beautifully packaged in standard boxes, but by virtue of famous brand name and appeal of the package is a gift item. Schiaparelli was first to do this kind of packaging. Then came Adrian's attractive blue and white box with red signature last year. Now Lanvin stockings carry the Lanvin trademark that has become so famous on the perfume packages.

Something new in hosiery gift packaging, too, for the special occasion are the gift folders, which are being used by a number of firms.



DISNEY CHARACTERS illustrate box for U. S. Time Corp.'s "Alice in Wonderland" watch, packaged with child's tea cup.

PROPER BOXING permits Anson, Inc., to promote men's jewelry for the special occasion. This interior-lighted dimensional church, lithographed in color, is shipped with individual dealer orders.

The packagers of sheets and pillow cases, in the last few years, have been adding interesting color effects and feminine appeal to cellophane wraps for these items, so that they are as attractive for a gift purchase as a staple. Cannon, of course, has been a leader, but Pacific, Fieldcrest, Pepperill and many others are also going in for more attractive put-ups.

The use of transparent packaging has become most effective in the soft-goods field, particularly for items which, except for the packaging, might stay under the counter. An example is the transparent package for Needlecraft bath mats illustrated here,



EFFECTIVE PROOF of the power of gift packaging is seen by the continuous use of Christmas sleeves year after year in the cigarette and tobacco field. Photos show how leading brands were dressed up last season.

OLD GOLD PHOTO, ROBERT GALT CO., INC.

the packages for various infants' items, such as a transparent box for Ripon's slipper sox for babies or Swan Knit Mills layette. In the latter case there was a definite need for adding color and brand interest to the package. Previous to a recent redesign, the layette package was a set-up box with transparent acetate cover. It was neat and had product visibility, but it lacked character through lack of color. The new package retained the set-up box construction of the base, but switched to a double-wall folding box construction with transparent window for the lid. This permitted the introduction of a decorative nursery motif in pink and blue. Two separate packages were designed—one for Swan Knit and one for Alden's mail-order business. Almost immediately after introduction of the new packages, it is reported, a marked increase in sales was noted.

Confections

Because boxed candies are a high impulse item, mostly purchased as gifts, candy manufacturers must be constantly on the alert to trends in box designs, shapes and styles. The popular type of box for department-store selling is a flat rectangular shape suitable for store display. Drug stores prefer a deeper box with a smaller top surface suitable for display on counter racks. Another shaped box for popular-priced assortments is known as the "bundle-type" box—a simple set-up construction which can be

USEFUL IDEAS IN MANY FIELDS

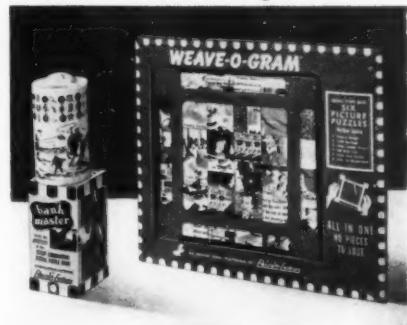


PHOTO COURTESY, GEORGE REINER.

PUZZLES are usually impulse items. Weave-O-Gram jigsaw puzzle and Bank Master packages practically sell themselves with illustrations.

STARTER SETS for china provide an excellent gift unit. When packaged in a corrugated display box, they have counter appeal and may be sold in pre-pack completely protected from breakage.



P-1010 COURTESY, THE HIND & DULCE PAPER CO.

picked up and easily carried in an overcoat pocket—the everyday type of gift box that Pop picks up on his way home from the office to treat Mom and the kids.

In addition to this staple gift packaging in the candy field, of course, are the occasional specialties—Easter eggs and baskets, Christmas stockings, Valentine hearts and the super de luxe, re-use boxes—sometimes of plastic, sometimes leatherette covered, sometimes lithographed metal or basketry.

Stationery

Every year, leading stationery firms seek new ideas in packaging tying in with special promotions of the papers, such as box covering with floral motifs or historical themes that can be used in the promotion. One firm has a note paper promoted for rainy-day

letters—the idea suggesting letter writing on days when one has to stay indoors.

China, glass and silverware

Much progress has been made in packaging starter sets of American china and pottery. An interesting example is an attractive corrugated display container for Stangl ware. The package opens up into an attractive counter unit, but is actually a pre-pack, ready for gift selling from stock. Similar put-ups are being used widely for sets of table glassware.

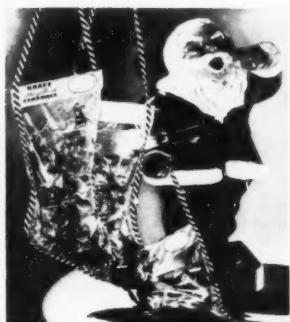
The rigid-drawn transparent display package has made a place for itself in the silverware field and many leading firms now package various combinations in this manner. It not only permits displays of the patterns in the store, prevents handling, but provides a very attractive gift package

for the recipient. The packaging of infants' and children's silver in transparent boxes with soft toys has also become an important practice in the silverware field. Transparent packages, both molded and fabricated, are being adopted widely for all manner of cutlery. One such package is particularly effective because it shows off to advantage the design of a set of fish knives which have handles in the shape of a fish. The molded container is a permanent box for the knives.

Liquor and tobacco

The use year after year of decorative gift sleeves for cartons of cigarettes is another striking proof of the effectiveness of the package to create gift sales. Today liquor firms are becoming almost as universally converted to this form of seasonal promotion. Last Christmas, practically every

PHOTO COURTESY KRAFT FOODS GROUP



SEASONAL appeal helps sell confections. Kraft's polyethylene stocking may be hung on a tree.

PHOTO COURTESY ROBERT GAIR.



BOOK CARTONS of foil are hardy perennials for candy. This Life-saver package has two drawers.

PHOTO COURTESY PLATINUM & POLACEK



BAKE-IN containers of metal, surfaced for heat resistance, are used widely for fruit cakes baked right in container.

WRITING PAPERS need promotional themes which can be tied in with packages. Eaton's "Ballerina" is a foil-covered box with figure of dancer wearing applied-lace skirt. "Chest of Cheer" is scale model of a pine chest.



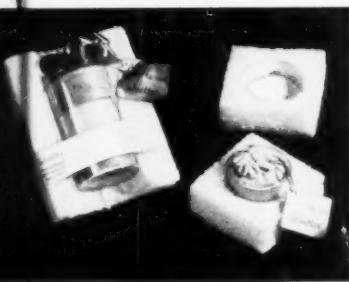
HOST AND HOSTESS GIFT idea is suggested by Bantamite's clever manner of boxing two pocket flashlights—his, hers.



COSMETIC TREND IS TOWARD THE SMALLER UNIT



PURSE SIZES of favorite fragrances are being put out by many of the leading houses, such as this Corday Purse Trio—three bottles of perfume with metal case. Charbert combines a trio of solid colognes in a single gift unit.



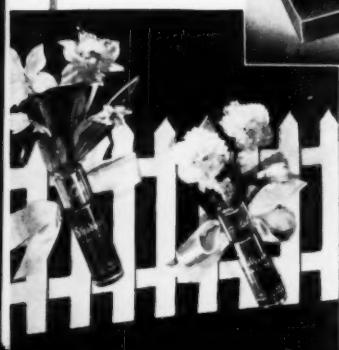
EYE APPEAL is given Quette compressed washcloths by the use of acetate boxes and styrene foam setting.



BEAUTIFUL BIBELOTS—Elizabeth Arden's jeweled Easter eggs mounted on filigree metal standards.



COUNTER INTEREST is cleverly achieved for 1 1/4-dram purse dispensers of Prince Matchabelli fragrances by affixing the bottles to a miniature white picket fence.



MEN'S toiletries receive renewed attention. Tussie line is bold and masculine with red boxes monogrammed by hot-die stamping and embossing in gold.

major brand of liquor appeared in a decorative gift carton.

Gift certificates

Ever since the makers of men's hats originated the idea of supplying a miniature hat with a gift certificate for the purchase of a hat, a cleverly packaged gift certificate has intrigued the makers of many products which must be sold by size or color. Department stores have put their gift certificates in clever little boxes suitable for Christmas-tree ornaments. Now one firm which manufactures bras and another that sells hosiery have offered tiny transparent acetate packages in which the merchandise for which the certificate is given is represented by attractive drawings of the articles—die cut and placed in the containers along with the certificates. One package for a bra-slip is a cone-shaped Christmas-tree ornament. The other for stockings looks like a candlestick with pictured legs showing through the acetate.

Store gift packaging

The advantage of the distinctive gift wrap as a promotional good-will builder is almost universally recognized by retailers and there seems to be a decided trend to integrate the distinctive gift box wrap with a store's over-all packaging program. An example is the appealing violet design used by Bonwit Teller not only for gift wraps, but for general merchandise bags.

For the Christmas season, most stores outfit themselves to have something distinctive, depending on budgets and competition. Every store is desirous of having packages a customer will be proud to carry.

There is endless variety in design treatment as exemplified by the contrast between Bonwit Teller's romantic violets and Peck & Peck's New Yorker-type drawings by Ludwig Bemelmans for its last year's Christmas box coverings.

Almost anything can be sold as a gift if properly packaged. What the package will be and whether a firm should adopt a gift-packaging program depends, of course, on its own market and trade practices. The point to remember today is that stores are beginning to expect the gift package to help them sell. And if you can profitably offer an appealing package—whether year around or seasonal—it can be one of the strongest tools to capture your share of the millions of impulse gift purchases made daily.

Modernizing a tradition

HENRY BIRKS & SONS, THE LEADING
SILVER AND JEWEL FIRM IN CANADA,
TAKES AN OUTSTANDING STEP IN THE
LUXURY-PRODUCT PACKAGING FIELD

From Halifax to Vancouver the name of Henry Birks & Sons, Ltd., is recognized as the most famous in Canada for silver and jewels—like Tiffany in the United States.

Most significant, therefore, is the progressive step this conservative old house has just taken in completely redesigning its packaging. This comprehensive design project, carrying over even to the company's letterheads and identification on Birks' 18 retail store fronts, was executed un-

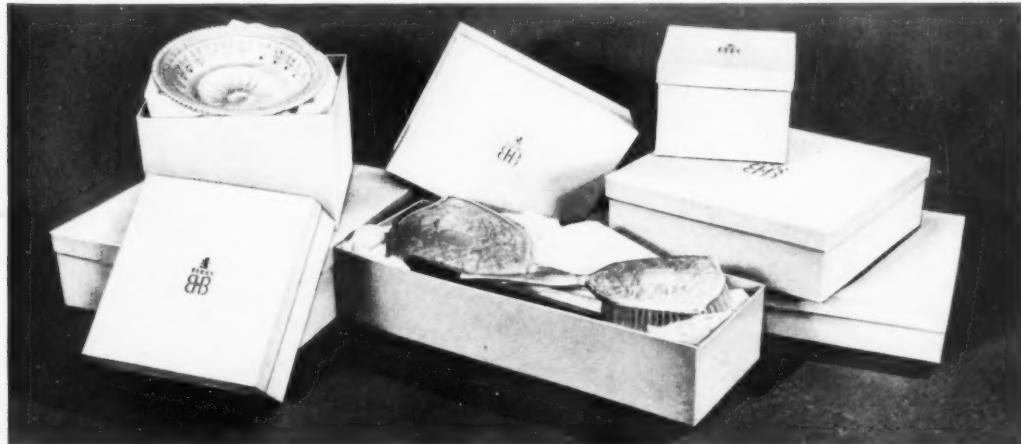
der the supervision of a New York package designer.

A restyled trademark has now become the basic theme for all Birks' packaging design. Through the use of this modernized, simplified symbol, a high degree of continuity in company identification is obtained regardless of the variety of decorative patterns worked out to meet the

NEW TRADEMARK design is the sole decoration on boxes for Birks' general line of merchandise. The modernized "crest" is printed and embossed in dark blue on light blue cover papers. The package design and the color scheme are standard for all of the company's 18 Canadian stores.



OVER 100 SIZES of general-line merchandise boxes are used. Trademark dies in four sizes care for all of the box sizes.



Henry Birks' ancestor, Richard Birks, was an honored member in the medieval guild, the Cutlers Company of Sheffield.

As a symbol of tradition, the stylized version of a heraldic lion rampant, therefore, has been simplified, modernized and carried over from the previous trademark which had, in turn, incorporated it from the appointment royal-warrant stamp which was granted the company more than 50 years ago.

The design of the lettering for the name as the second element was chosen not only because of its elegant, classic appearance, but also because it resembled somewhat the lettering of the name as it appears in the company's silver hallmark.

A modern note is introduced primarily through the use of two large initial B's, treated as purely decorative design. One B is reversed so that the two straight vertical strokes form the letter H, using an elliptical-shaped dot for the crossbar of the H, with the curved strokes on the outer sides giving balance and symmetry. The shape and position of these B's, especially the curved strokes, in relation to the other design elements are particularly interesting since they define and limit the area of the whole trademark design to the eye so clearly and compellingly that no other separation devices are needed. The value of this becomes more obvious when it is seen how the trademark is used as the sole decoration on many of the packages.

Except for its most expensive items, most of Birks' merchandise is packaged in set-up boxes and over 100 different sizes are used. As with the former packages, the feature of the

box covers is the new trademark in the center as the crest-type decoration. At present, however, the background color of the box paper is a turquoise shade of blue. This shade is planned to be changed gradually—over a period of time—to a soft French blue as part of the restyling program. It was felt that the richness of this shade of blue expressed the quality and distinction of the merchandise more subtly. These blue cover papers are made of heavy, mat-finish stock and the trademark "crest" is embossed and printed in dark blue inks. Birks made its own engraving plates for printing at its silver manufacturing plant in Montreal where the home offices, as well as the largest of its stores, are located. Dies were made in four sizes which were established as the standards for all the different-sized boxes used.

Knowing that most of its customers who buy expensive jewelry like to keep the pieces in their original packages, Birks has had cases designed and made with the care that justifies their being kept as heirlooms. Fine glazed leather, dyed French blue with the trademark and a decorative border design hand tooled in silver, are used to cover the cases which are hand made. The interiors are equally luxurious with satin or velvet linings and platforms. A feature in the decorative design of these cases is the B initial motif of the border in which the trademark B's appear in a hand-tooled repeat pattern.

Like a composer of music who writes variations on a theme, the package designer has made a series of design variations of the trademark for use as all-over patterns for paper bags, inner tissues, wrapping papers,

mailing envelopes, special box wraps, labels, stickers, gift certificates, etc. Most interesting of these are the designs for Christmas packages.

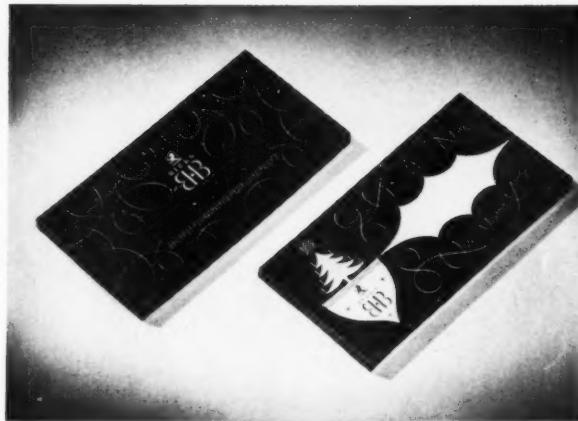
The first appearance of the new trademark was on the mailing envelope used for Birks 1950 Christmas gift catalog. A diagonally placed all-over background design combines the trademark in a small size and the larger-sized Christmas variation. In this latter design, the vertical bars of the B initials are sometimes transformed into two lighted candles, the dot between them becomes a star, and the lion is replaced by a little Christmas tree. Each unit is linked to another in the design by scalloped lines suggesting festoons of greenery. This effect is enhanced by the addition of small circle designs that "dangle" from the point of each scallop like tree ornament balls.

Separate labels are unnecessary for these mailing envelopes, since a simulated label is printed on the front with a blank patch left for filling in the address. The first year these envelopes were printed blue on gray; last Christmas the color scheme was reversed and in the future the company plans to use the same design, combining a different color scheme each year. This plan has already been found to offer definite economies, according to company officials. First, it enables Birks to amortize the cost of the special plates over several years and, second, it eliminates the cost of additional labels. At the same time, at practically no additional cost it provides mailing envelopes with a distinctive design treatment that is in keeping with the quality character of the firm.

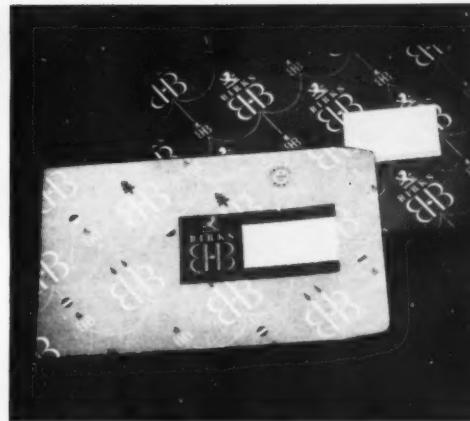
Box wraps for the general price



COSTLY ITEMS
SELLING FOR MORE
THAN \$500 COME IN
HAND-MADE BLUE
LEATHER-COVERED
JEWEL CASES WITH
EMBOSSED CREST
AND HAND-TOOLED
BORDER IN SILVER.
THEIR ELEGANCE
TYPIFIES HEIRLOOM
QUALITY OF A BIRKS
PIECE OF JEWELRY.



GIFT-CERTIFICATE containers show the additional variations of the basic design. The graceful, ribbon-like lines set off the initial B trademark. Note Christmas adaptation at right.



CONTINUITY of identity is achieved through the use of these all-over designs printed on mailing envelopes, paper bags, wrapping papers, etc.

merchandise line and wrapping papers were also printed with the Christmas variation design in the silver and blue combination. In addition, a modification of the holiday design was used on special box wraps for packages in the more expensive lines. For these, snow-white, glazed paper stock is used and part of the design is embossed and the remainder printed with blue inks.

Another example of design variation is found in the two packages used by Birks for gift certificates. The regular year-around design for these packages, printed with a reverse plate, has graceful, ribbon-like lines setting off the centered trademark and the initial-bordered write-in-the-

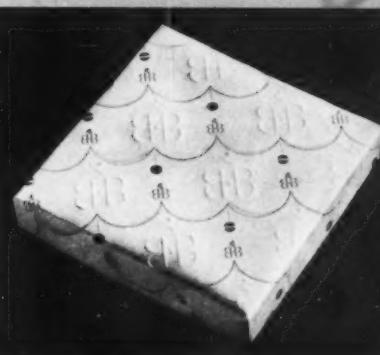
name panel below. In the Christmas variation, the trademark is treated as part of the decoration of a stylized tree ornament ball design and part of the re-arranged line tracing design is used to outline the name panel and give it the shape of another tree ornament.

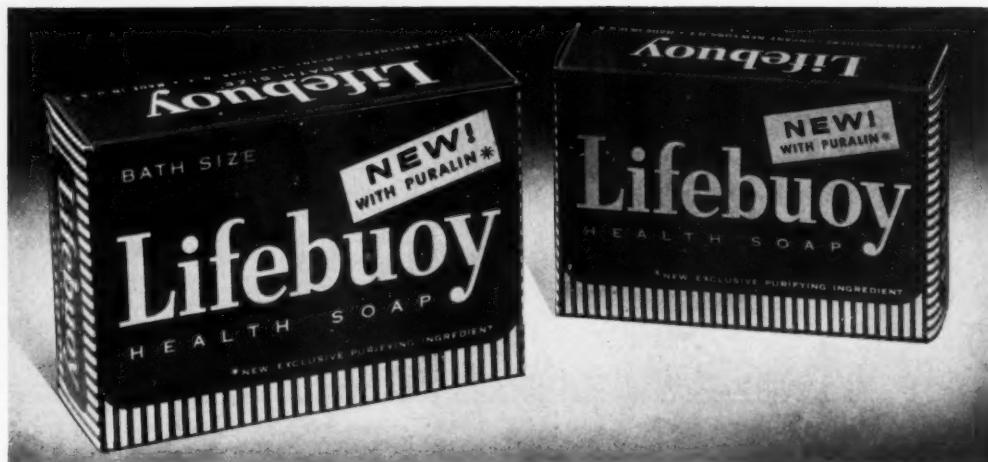
The many favorable customer comments on the Christmas designs the first year they appeared, convinced company officials on the value of inaugurating the package restyling. Now that the change-over to the new designs has been completed, the economies that have resulted from simplification and standardization of packaging materials and sizes, and the multiple use of the same printing

plates have also been realized. The value of integrating the trademark in packaging design to assure continuity of company identification at the retail level is, from the standpoint of the House of Birks, the most important accomplishment.

CREDITS: Design, Charles C. S. Dean, 521 Fifth Ave., New York. Box cover papers supplied by Provincial Paper, Ltd., Montreal, and Kromekote wrapping papers supplied by B. D. Carpenter, Ltd., Montreal. Wayagamack kraft wrapping papers, Consolidated Paper Co., Ltd., Montreal. Printed mailing envelopes, W. V. Dawson Co., Montreal, and Herald Press, Ltd., Montreal. Gift-certificate containers, Rolph-Clarke-Stone, Toronto. Leather jewelry cases, Buffalo Jewelry Case Co., 329 Broadway, Buffalo, N. Y.

DESIGN VARIATIONS for Christmas packaging. Initial B of trademark is emphasized in an all-over pattern incorporating holiday symbols—trees, candles, ornaments. The general-price-item boxes have blue and silver wraps; for the higher-priced items, boxes are covered with white glazed paper embossed and printed in blue.





1952 PACKAGE—it's still red, but a more pleasing shade. Candy stripes give added appeal, more interest in mass display.

A NEW

Lifebuoy

PACKAGE BREAKS FROM

ITS CLASSICALLY SIMPLE ARTHUR ALLEN DESIGN TO A BRIGHTER MODERN FORMAT

During May, Lever Bros.' Lifebuoy soap will reach national markets in a completely redesigned package. The new package marks another milestone in Lifebuoy history—a new soap formula imparting a fragrant scent and paving the way for wider promotion of this famous brand as an all-purpose bath soap.

The evolution of this package—representing five major changes since Lifebuoy was introduced in this country from England in 1895—might well be considered a classic in the annals of packaging, showing the importance of continuing study of package design to meet successfully the requirements of new merchandising trends and improvements made in the product.

The original Lifebuoy carton, printed in three colors, was a typical example of 19th century package design. It carried a trademark which had long been advertised—a picture of an old bearded sailor ready to hurl a lifebuoy on which was printed, "for saving life, for preserving health," accompanied by panels cluttered up

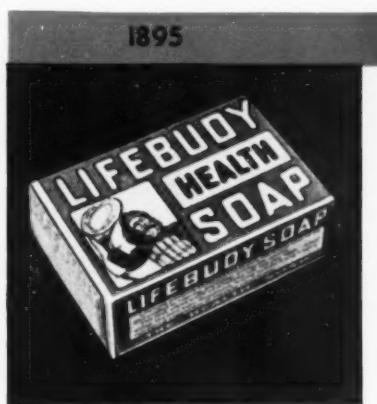
with small type describing the product.

Forty-two years ago, according to MODERN PACKAGING's records, Lever Bros. retained the late Arthur S. Allen—the most famous package designer of his day—and tackled the modernization of this package in a manner that would do credit to any progressive packager today. The decision was made to eliminate the bearded sailor (whose picture often prompted people to inquire whether the soap would grow hair) and other cluttering detail and evolve a thoroughly simple, bold, modern package.

The book "100 Packaging Case Histories," published by this magazine in 1939, dates the change as occurring in 1910 and says that it "represents one of the first instances, if not the very first, of conscious package redesign and one of the first breakaways from the fear of antagonizing established consumers by a change in package appearance."

But Lever Bros. and their designer showed the proper respect for established consumers by introducing first

a transitional package which eased the break to a starkly simple design. In the transitional design, the letter-



ing was simplified and modernized, the copy reduced to a series of very short slogans, the picture of the sail or replaced temporarily by a picture of the cake of soap. This eliminated any doubts about the contents of the carton; people recognized the soap pictured as the same bar that they had been buying for years. This design was tested through the distribution of 1,000,000 cartons in the state of Connecticut and thereafter was used nationally for a six-months' period.

The final step, to a simple carton that retained the colors and lettering style of the transitional one but eliminated all illustration, was then easily made. This famous red-and-yellow box, which must have been introduced late in 1910 or early 1911, has often been referred to as a classic example of the Arthur Allan style and a forerunner of truly modern design.

This design stood the test of time. It remained basically unchanged until the present redesign, although another leading designer—after Arthur Allen's death—was retained in 1948 to refine the details further, in line with present-day practice, by eliminating the yellow border around the package panels and the outline on the lettering of the Lifebuoy name.

When the new product formula was adopted this year, Lever Bros. felt a further modification was necessary to call attention to this improvement. A package was desired that would

(1) retain the valuable consumer identity of the old, (2) be more appealing to women and (3) provide interest in jumble counter displays.

The new package is still a red package, but printed in a shade more pleasing than the former color. The solid red color area has been relieved by the use of a candy-stripe motif extending over the bottom face of the package and around one side and over the ends, except for the areas where the product name appears in reverse on the sides. This, it is believed, gives the package a sufficiently feminine appearance to encourage purchase by women, without making it too cosmetic looking for appeal to men. The product logotype has been relettered in initial cap and lower case, giving more refinement and greater legibility. A white rectangular patch printed in red on the face of the package calls attention to the new purifying ingredient, "Puralin." The new product is reported to stop body odor before it starts. New emphasis has been given to size on the bath-sized cake to distinguish it from the regular size. And a semi-gloss ink retards fading, improves appearance and gives greater protection. Front and back are alike so it is easily readable no matter how the packages are placed in jumble displays.

Thus Lifebuoy, in new dress, is ready for a new period in its merchandising history to meet growing competition from other soaps now be-

ing promoted with bath appeal and from the increasing use of deodorants now reported to be used by five out of 10 men. No market tests were made on the new package. It is Lever Bros.' belief that no package pre-tests are conclusive, since it has been the company's experience that any new package will outsell an old one. The package change, however, is based on sound product research which indicated that regular users of Lifebuoy preferred the new formula three to one and that occasional users preferred it five to one over the old.

It has long been Lever Bros.' boast that nothing other than the advent of low-priced plumbing has contributed so much to a high standard of bathing habits as has Lifebuoy advertising. Lifebuoy is reported to be the most widely used bath soap in the country—its widely advertised promotion as a cure for "B.O." started in 1926, having quadrupled sales of this brand during the '30s.

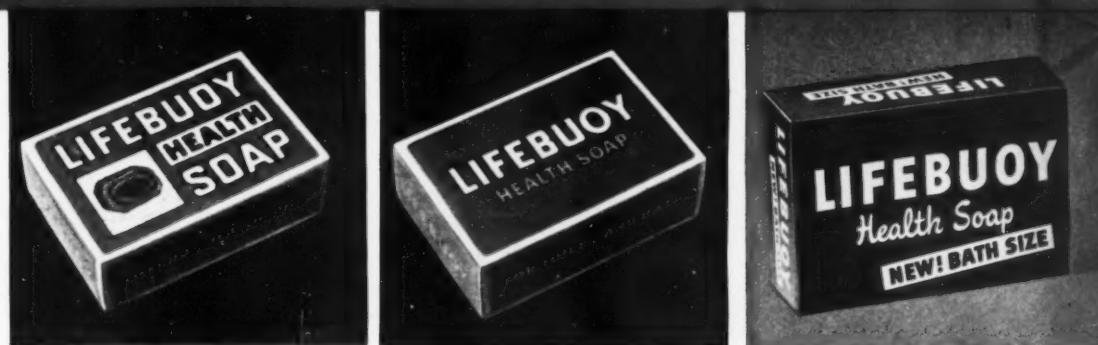
With its more pleasantly scented Lifebuoy in the new package, Lever Bros. is set to increase the success of this famed packaging pioneer through advertising which will continue to keep America bath-conscious.

CREDITS: Design, Raymond Loewy Associates, 488 Madison Ave., New York 22. Cartons, Fort Orange Paper Co., Castleton-on-Hudson, N. Y.; Michigan Carton Co., Battle Creek, Mich., and Fibreboard Products, Inc., 1789 Montgomery St., San Francisco.

TRANSITION

1910

1948



ORIGINAL package with the bearded sailor. In 1910 a transitional design replacing the sailor with a picture of the cake of soap bridged the change-over to a thoroughly simplified modern design. This basic treatment remained virtually the same until the yellow border and outline lettering were eliminated in the 1948 redesign.



FORTIETH OF A SERIES

WONDER BREAD

On a summer evening in the outskirts of Indianapolis, two years after the end of World War I, the sky was filled with a pattern of varicolored balloons drifting gracefully in the International Balloon Race then being held at the Indianapolis Speedway. Some of the balloons were small disks in the distance; some, huge globes overhead; some trailed near the dusky horizon. To watchers of this polka-dot parade, the great balloons were a colorful and exciting spectacle—a circus in the sky that spectators craned their necks to see.

The pattern of those balloons, because they seemed to signify *wonder* in its simplest terms to one of the watchers, is today a familiar package symbol for one of the best-known brands of the world's commonest and

most vital food—Continental Baking Co.'s loaf of Wonder Bread. The basic design of red, yellow and blue circles at the ends of the white paper wrap is much the same today—31 years from the date of its first appearance—as it was when Wonder Bread soared to initial success as a local brand in Indiana.

In a field as big and important as bread, the selection of the best-known and most-successful package is difficult. There are several claimants for the honor. But Wonder Bread is the only loaf promoted and sold nationally by a single company. In 1950 Continental's bread sales alone were \$113,855,486, out of a bread-and-cake total of \$155,182,652. The company's bread sales alone exceeded the total cake-and-bread sales of the next-largest baking company in 1950. The same

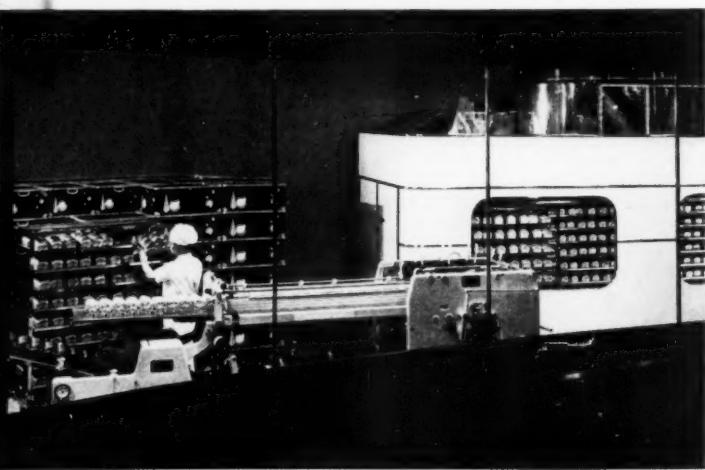
status undoubtedly holds true for the period between 1950 and the present in view of Continental's \$15,000,000 upward hitch in sales last year. Total sales of Continental's bread and Hostess Cakes in 1951 were \$170,187,363; sales for the nearest competitor were \$114,205,199.

Approximately 40 million loaves of bread are required daily to satisfy the U. S. appetite and total bread sales are estimated to exceed an annual \$2-billion rate. Cake sales probably add another \$1 billion to this amount. Thus there can be no questioning of bakery products' basic position in the food industry, nor of their importance as a market for packaging materials and equipment. Since 1929, Continental's share of bakery business in its field has held at a steady 6 to 7%. During the same period, total industry volume has more than tripled.

Notable in Continental's growth has been its continuous cultivation of markets by means of national advertising—in a business almost strictly hometown in nature. Because the production-delivery-retail cycle is measured in hours rather than days or weeks, national stature in the bread business is handicapped and size is not the natural advantage that it may be in many other fields. Size does favor economy through mass purchase of raw materials and thoroughgoing programs for cost accounting, quality control and sales training. Otherwise, each bakery in the organization must operate as a decentralized unit and compete with dozens of large and small bakeries.

The Wonder Bread package design is a natural for promotion—and Continental has made the most of it. To overcome the very problems created by size, a wide range of media has had to be used intensively to maintain the company's dominant position. In

WONDER BAKERY at New York World's Fair dramatized mechanization that revolutionized baking industry and banished baking in the home.



NOMINATED FOR PACKAGING'S HALL OF FAME BECAUSE:

- Sales have soared like balloons that form its trademark since this brand helped pioneer the mass promotion of packaged bread in 1921.
- It now has the widest distribution and largest sales of any single brand in a \$2-billion market.
- In a field where packaging is highly standardized, it has lifted its brand to prominence by memorable design backed by national promotion.
- It has always been a leader in improvement of materials, methods and machinery of packaging.

cluded are newspaper and outdoor advertising, radio, television, permanent and temporary point-of-purchase aids, miniature sample loaves, house-to-house and store demonstrations, cooking schools and planned meetings, even including full-scale operating Wonder Bread bakery buildings at the Chicago Century of Progress Exposition in 1933 and the New York World's Fair in 1939.

Millions of balloons, of course, have been given to children, for balloons, which never lose their popularity, are the package design symbol—and what simpler dramatization of *wonder* could be found for promotional use? Counter panels and door strips have been used for years by the company to remind store patrons not to forget to buy Wonder Bread. These simple devices alone must have sold millions of loaves of bread.

Through a cross-fire of introduction, reminding, coaxing, selling and reselling with an imposing array of promotional weapons, Continental has everywhere spelled out the words "Wonder Bread" as a daily target for continuous consumer favor. The product's excellent package design, the success of its promotion, its sales leadership and continuous growth provide, therefore, a very firm basis for its nomination to *Packaging's Hall of Fame*.

Always in the forefront of the company's successful promotions is the bright and buoyant balloon-design bread wrapper and the semantically wonderful, ever-so-easy-to-recognize Wonder Bread logotype printed in poster-style block lettering on the wrapper. The package thus identifies the target of Continental's multi-faceted promotions and plays a tremendously significant part in enabling the company to operate nationally.

The firm's present campaign—one of



COAST TO COAST, today's Wonder Bread loaf with familiar balloon design is seen, recognized and purchased by millions of shoppers daily.

its most successful—is spearheaded by the theme "Wonder Bread builds strong bodies 8 ways." Large amounts of newspaper space are used in this forceful advertising series. As for radio, Continental was one of the early network broadcasters and is closely identified with numerous advances in broadcasting techniques. The company's one-time theme song, "Yo Ho, Yo Ho, Yo Ho, Hurrah for the Wonder Bakers," introduced in 1929, was one of the pioneer singing commercials. In the '30s the firm was quick to see the value of the then-slighted daytime audience and sponsored "Pretty Kitty Kelly," a program that proved women weren't out of the house all day. The company helped introduce the era of spot radio, in 1936, with its evening show, "The Great McCoy." Orson Welles, in his first starring broadcast

role, was The McCoy. Continental has since run the gamut from juveniles to give-aways and is now going strong in radio with "Grand Slam" and in television with "Cowboy Classics," a 1-hr. show of Western films.

Continental's main-line product is its white loaf of Wonder Bread, which probably accounts for nearly \$2 of every \$3 received in cake and bread sales. Although the specialty breads, rolls and cakes are thought to be the big-profit items for many bakeries, Continental's experience shows that white bread, the favorite of all staple foods, can be the big winner in total earnings. One reason for this is the fact that delivery expenses are pretty much a constant in the business.

Continental's complete line includes rye and whole-wheat bread, rolls and Hostess Cakes. The specialty breads

Design evolution



THE ORIGINAL

INTRODUCED as a local brand in Indianapolis in 1921, the Wonder Bread design, because of its excellent name and colorful wrapper, was selected by Continental four years later for nationalization.



FAMILIAR ELEMENTS of the wrapper—its multicolor balloons and prominent name—have been a continuous feature. The girl figure was eliminated in 1931 when sliced bread was introduced. The wrap adopted in 1945 illustrates the trend toward simplification, which actually was started 10 years earlier and since that time has required little change.

are wrapped in cellophane. The rolls are packed and cellophane overwrapped in a chipboard tray that is especially coated to eliminate odors and resist staining. The Hostess Cake line includes macaroons and cream-filled cup cakes, "Sno-Balls" and "Twinkies"—all cellophane wrapped and heat sealed in the modern manner for visibility appeal and sanitary freshness.

The early days

Bread as a packaged, branded product of more than neighborhood scope goes back only about four decades. During that time there have been many advances in the manufacture and distribution of packaged baked goods. And the industry as a whole has become the biggest single user of waxed paper and cellophane and among the largest consumers of many other converted and unconverted materials, as well as machinery. As a result, the customer is now assured of enriched, sanitary, fresh products so convenient to purchase that the old "Saturday's bake day" is now a relic of the past.

The revolution that brought this about was led by many progressive

bakeries alert to the trends of the times, as well as by the manufacturers of new and improved packaging materials and machinery, and by improved distribution and advances in retail merchandising. One of the most important changes was the advent of motor trucks, replacing the horse-drawn delivery wagon.

Prior to 1910 most bread was sold directly to the consumer by a neighborhood bakery. The loaf was wrapped in plain paper and tied with string at the time of purchase. Wholesale bakers usually sent unwrapped bread to retail outlets. An article in *Baker's Weekly* in 1907 drew a most vivid picture of the dangers from dirt when loaves were being distributed in horse-drawn wagons. Another article pointed out that waxed paper would preserve freshness and suggested that a reduced number of returns might offset the packaging cost.

But the packaging revolution had to wait until 1914, when a Frenchman, Henri Sevigne, invented the first bread-wrapping machine. Shortly thereafter other manufacturers developed speedy models. The paper used by the Sevigne machine was dry waxed, not surface waxed, and an

auxiliary device was required to spray wax or other adhesive material to seal the bottom of the wrapper and the end folds. Another machine, however, was developed to use wax coating on the paper for the seal. This principle eventually became standard. The waxed paper used at this time was nearly transparent. Later the paper was opaqued to produce better shelf appearance. In the early days of bread wrapping, when the transparency of the waxed sheet allowed wrinkles to show up, fancy designs were sought to help cover up the shortcomings of the paper.¹

With the advent of the wrapping machine, wholesale bakeries began to grow in size and importance. Merchandising agencies began to offer franchised package promotions. "Buster Brown" was one early brand so offered; another was "Teddy Bear." These foreshadowed the large sectional or national promotions eventually found possible when the big bakery companies were established. The franchised plan is still used today and one large group of independent bakeries enjoys excellent success through the use of a common brand name widely advertised and promoted through joint effort of the participating companies.

The era of amalgamation and consolidation of bakeries began about 1915.

One of the companies to figure prominently in one of these early moves was the Taggart Baking Co. of Indianapolis. This firm in 1913 was selling an unwrapped loaf that was identified merely by a small sticker. It was followed by a 1-lb. loaf wrapped in waxed paper and trade-named "Mary Maid." The product was sparked to local sales leadership by an intensive campaign that included blind ad build-up, prize contests and "folksy" copy. The theme of the campaign was "Mary knows Taggart's bread is good." There was an underlying subtlety in the campaign, as sure-fire now as it was then. "Mary" appeared in a long series of "Mary knows" ads—as Aunt Mary, Sister Mary, Cousin Mary, etc. Mary, one of the best known girls in Indianapolis, thus did the talking for Taggart. Her recommendations were a testimonial built up so expertly that they became both familiar and convincing. The Mary Maid campaign in many

¹ See "Bakery Packaging," MODERN PACKAGING, May, 1945, p. 92.

respects was the testing ground for the program that launched Wonder Bread.

Origin

In 1920 Taggart decided to go along with a postwar trend and bring out a 1½-lb. loaf. Elmer Cline—then vice president of the company, later vice president and a director of Continental and now head of his own New York ad agency—tackled the problem of devising a merchandising vehicle for the new loaf of bread. Then as now, he believed a good merchandising package begins with a good name—one that is short, familiar, easy to say and remember and abounding in appropriate meaning. For example, he had chosen the Mary

Maid name for Taggart's earlier loaf because the name Mary had a history going back to Bible times. What's more, almost every family had a Mary as a relative or a friend. A trade character named Mary would therefore be a most believable and promotable endorser.

The Wonder name was chosen by Cline because it met the requirements he had already proved so effective in promoting a package. It was simple and pleasant and it neatly summed up the connotations (surprising, astonishing, marvelous) that he wanted people to associate with the new jumbo loaf. The design theme for the wrapper then came to him one evening when he saw the balloons in the International Balloon Races floating above the

lawn of his suburban Indianapolis home.

The first wrapper accordingly had blue, yellow and red circles. The word "Wonder" was printed on each circle. The circles were large near the center of the loaf and smaller at the ends to suggest movement and thus dramatize the circus effect. Their geometric pattern on the wrapper neatly eliminated any problem of lost identification caused by the standard retail practice of end-loaf display. The geometric shape and random design of the balloon figures lent themselves to the folding operation, for slight variations in the fold did not affect neat appearance or cause loss of pattern. For this reason, end labels were not required for neat appearance. End labels have

Promotional techniques



YO-HO SONG, one of the pioneer singing commercials of radio, was introduced in 1929 as theme for Happy Wonder Bakers quartet, later was featured in "Wonder Show."

BALLOONS have been used in countless promotions, since Wonder Bread was introduced in 1921, when route-men in company trucks distributed balloons to children.



DIRIGIBLE—painted by day, lighted by night—is a natural for promotion of the "balloon bread." Constant, ubiquitous promotion makes Wonder Bread a daily target for consumer favor.



LOCAL PUNCH in current promotion is store display of prizes and award presentation to winners of Continental's radio show, "Grand Slam."

been needed by other brands to assure neatness and identification, although they also have become important in merchandising appeal and for improving the seal.

A curiosity on the first Wonder wrapper was the following instruction: "Notice to consumer: Remove this wrapper on delivery to your home. Some access to the air is necessary in preserving the sweet flavor and nutritional value of good bread." This advice was thought necessary in those days so that the gas generated in the loaf by leavening and baking would be allowed to escape. Every home, at that time, of course, had a bread box for unwrapped loaves.

The Taggart Co., appreciating the value of good package performance in display, employed the heaviest ink laydown on any wrapper then being used. The vivid colors and strong end design were years ahead of many rival brands and unquestionably gave Wonder Bread a valuable sales advantage. The Wonder name and the balloon de-

sign were chosen, out of a number of excellent brands available, for national promotion when the Taggart Baking Co. was bought later by Continental and added to that company's large family of local bakeries.

Taggart's advertising campaign that proved the product's merchandising potential followed the same successful course that had been used for Mary Maid bread. Blind ads stirred up curiosity about the coming "Wonder." Then, on May 21, 1921, The Indianapolis Star and the News carried the following message:

W O N D E R

So now the mystery we will end,
And to every home a message send,
A message that brings joy to you,
To mother, father and grandma, too,
To Mary, Betty, Jack and Joe
For all the family will learn to know,
The meaning of this wonder word
That every one has read and heard.
A new delight with every bite,

Both morning, noon and every night,
For Mary knows, you know her well,
And many a truth she's had to tell,
And now the best she ever knew,
She gives in this new loaf to you,
For as Taggart leads, they're still
ahead,
And now it's

TAGGART'S W O N D E R B R E A D

The Bigger, Better Taggart Loaf
You Will Know It By The
Wonder Wrapper

P.S. Place your order for WONDER BREAD, the new Taggart wrapped loaf, with your grocer Monday. He will have it beginning Tuesday, May 24th.

For days, following the brand's debut, company trucks carrying cylinders of gas traveled to various neighborhoods and routemen began filling balloons. Soon the children would gather and would be given a balloon if they would promise to take a letter home to mother. The letter had a color picture of the Wonder Loaf at the bottom and a string leading to a balloon at the top. The message, of course, invited the reader to try the new bread. Wonder Bread sales, it is said, soon outdistanced those of any other brand in the city—even those of Taggart's well-promoted, long-established Mary Maid loaf.

Empire in bread

The Taggart Baking Co. was sold to Continental in 1925 and Wonder Bread soon thereafter became the Continental brand name nationally. The head of the purchasing group was William B. Ward, one of the famous names of the baking industry, for it was he who led the mergers and plotted the financial moves that produced Continental, the General Baking Co. and the Ward Baking Co.—the Big Three of the baking industry today. In 1927 attempts to consolidate the three large companies into what Ward called "a corporation with a soul" were smothered by the Federal Trade Commission.

Continental then was taken over by stockholders and under the leadership of the late M. Lee Marshall, fought its way out of serious overcapitalization and, through sound management, established itself as the sales leader and the only real nation-wide bread merchant. By decree, Ward was permitted to maintain connections only

BREAD WRAPPING is highly standardized, fully automatic in Continental plants coast to coast. Machines use refrigeration to speed setting of heat seals and assure neater, more protective wrap.

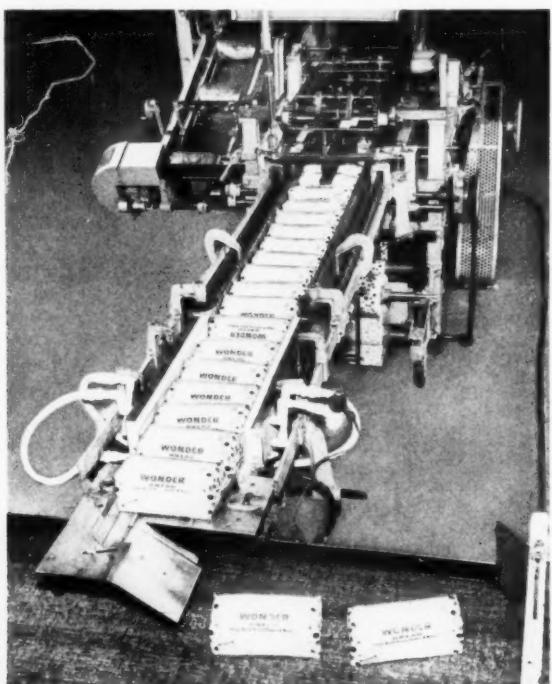


PHOTO COURTESY AMERICAN MACHINE & FOUNDRY CO.

with the Ward Baking Co. Two years later he died.

Under Continental's sponsorship, Wonder Bread enjoyed continuous growth in popularity—larger and more modern promotions proving over and over the sales power of the name and package design.

In 1930 sliced loaves, one of the biggest changes in the history of bread, was ushered in and Continental soon joined the rush. The wrapping machines in use would not handle the sliced loaf. A paperboard tray to hold the slices was devised by an enterprising inventor. Later machinery manufacturers developed built-in guards to hold the loaf and the trays were abandoned. Sliced bread swept the field.

Improved wrappers

About this time a wrap and inner liner became popular because of the increased support needed for the sliced loaf. The so-called double wrap was discontinued during the last war and is not generally used today. One reason undoubtedly was the advent in 1948 of a waxed-paper wrapper employing a polyethylene additive, now widely used, which provides a hard, glossy finish, supports brilliant color printing and helps effect a better seal.

The major components of the coatings in today's wrappers are paraffin, microcrystalline wax (for flexibility) and polyethylene. The major proportion is probably paraffin. Polyethylene probably runs 2 to 5% of the coating. The advent of these coatings required greater heat to complete the seal and new heaters were devised. The modern machine is also equipped with electronic controls and employs a refrigeration device to speed the set of the seal. The seal, of course, is critical in preventing wrapper failure, which is costly when it occurs frequently in the plant and extremely annoying to routemen, retailers and customers if it occurs during the delivery cycle.

The tight seal provided on today's wrapped bread prevents air from blowing in and out of the package, a condition caused by changes in temperature—warm bakery, cold truck, warm store, etc. Thus loss of moisture is retarded. However, bread is not kept fresh simply by preserving moisture content.

As a matter of fact, there is no standard definition for fresh bread, but there is a big difference between dry bread and stale bread. Customers usually believe dryness in bread



CONTINENTAL FAMILY is relatively few in number, but large in sales volumes. In addition to the Wonder white, wheat and rye breads and rolls (not illustrated) Hostess Cakes and cup cakes are big items.

means the loaf is not fresh. Other changes besides loss of moisture occur in taste, odor and mouth feel, and these start to take place from the time of wrapping and regardless of any wrapping yet devised. Therefore, Continental relies on quick delivery and a careful system of "old" bread returns to assure customers "fresh" bread.

By 1935 a number of changes in the original Wonder Bread wrapper design had been made and the result was a cluttered appearance. The late George Switzer, a talented designer, then performed a major clean-up. His approach involved a thorough study of paper-making and wrapper-printing techniques, as well as distribution methods and retailing practices. His studies resulted in a revamped layout with minimum change in appearance. The word "Wonder" was eliminated from the balloons, which were made smaller in size, and the Wonder Bread logotype was repeated top and sides.

The redesigned wrapper was a great improvement in simplicity and attractive shelf appearance, but the basic elements of recognition were not disturbed. Moreover, the redesign was carefully planned from a production standpoint to make maximum use of the best that the paper and printing industries had to offer in effectiveness, practicality and economy. The current

wrapper closely follows the design prepared by Switzer, indicating that long-term service is another advantage derived from the well-planned package.

Packaging and merchandising

Wonder Bread is baked and wrapped in bakeries strategically located in 81 geographical centers throughout the country. The packaging operation itself is seemingly routine because of the high degree of mechanization. After the loaf is sliced, it travels into the wrapping machine, where the web-fed wrapper is automatically cut to size and wrapped around the loaf, then heat sealed at a speed of about 45 loaves a minute.

The loaf passes through a refrigerated conveyor section that causes the seal to set quickly, thus eliminating a frequent cause of broken packages or untidy store appearance. The temperature of the loaf when wrapped is about 95 deg. F. Continental believes that bread wrapped at this temperature retains its moisture content best and stays soft longer.

Two methods of handling wrapped loaves for delivery are used. Some plants employ the standard fibre container, or hamper, holding 25 to 30 loaves. Other plants pack loaves in flat trays that fit special truck shelves; the loaves, thus, do not rest on each

other and the tray can readily be used in all stages of loading and unloading. In some geographical areas insulated trucks are used on long, cold routes.

Plant locale is determined by areas of population. The distribution range is from 10 to 200 miles, depending on density of population. Some plants bake all products marketed; some only bread; some only cakes; a few specialize in products for the institutional trade.

Continental believes much of its competition still comes from the housewife who bakes biscuits, rusks, corn bread and other bread substitutes, as well as cakes and other desserts. Periodic trends, on a national scale, to dieting have long worried bakery sales managers. Major strikes hurt the business on a regional basis, because they eliminate the four to eight slices of bread in the average lunch pail. In this respect, Continental's national coverage is an advantage because it helps level off the valleys caused by local economic disturbances.

The standard breakfast requiring toast is also an important factor in bread sales, but the many types of ready-to-eat cereals are a threat to toast. On the other hand, the convenience and uniformity of sliced bread has done much to increase the popularity of toast and proved a major boon to the makers of automatic toasters.

In view of the many trends in eating habits and the greater variety of food products now aggressively mer-

chandized, the staff of life has not had an easy time in holding its position as the foremost of staples. The industry, therefore, owes much to the Government program, instituted some 10 years ago, for enforced enrichment of bread. As a result, bread has kept pace with other and newer products as a staple food.

Continental's cake line was developed in the mid '20s. Hundreds of brands and many kinds of cakes and cookies, produced by the many former independent bakeries in the new family, were offered. Glassine was the packaging material most frequently used, but labels, designs and methods were a hodgepodge, and very little consideration was then given to packaging.

The company decided to concentrate on a few items that would be distinctively its own—a sort of Coca-Cola of the bakery business. As a result, the hundreds of brands were reduced in number and four main-line items were evolved: cup cakes, Twinkies, Sno-Balls and macaroons—all 10-cent products meeting a rather peculiar type of low-cost, high-volume demand. The company also features some seasonal items, including Hostess Fruit Cakes, and claims the largest sale in the world of this type of product.

The success of the Hostess Cake line is attributed by company officials to the emphasis on "freshness," meaning "as close to the oven as possible." A very short code, or period between

store consignment and mandatory return, has been established. The strategy involved is to sell out daily. Even though this constantly invites loss of some sales, it safely avoids risk of lost customers.

Advertising and promotion

Packaging is not expected to carry the load alone. Last year Continental, reportedly, spent close to \$4 million to advertise Wonder Bread and Hostess Cakes. Of this amount, probably half went for radio spot announcements, the network show "Grand Slam" and TV.

"Grand Slam" is a daytime give-away show conducted by Irene Beasley, the program's ace M.C. It has been going strong since 1946 and is said to be among the top 10 shows in listener ratings. It features listener participation, with award ceremonies usually winding up in a local retail store. The retailer's business enjoys a shot in the arm while the prizes are on display and Wonder Bread sales increase, too.

The television program "Cowboy Classics" also features a local punch provided by interviews with mothers and local grocers. The interview seeks out the mother's methods of saving time in a busy household and her interest in nutrition and the well being of her family. The grocer tells how he serves the community by providing a variety of fresh and nourishing foods.

Nutrition, of course, is the big gun in Wonder Bread's campaign. Newspaper ads stress the fact that adequate quantities of Wonder Bread supply minerals, proteins, vitamins in quantities recommended for growth and energy.

Billboards, truck signs and store advertising everywhere help extend the influence of radio and newspaper advertising to the point of purchase, where the familiar package completes the chain of effort in production, distribution and merchandising required to ring the cash register.

Wonder Bread's promotion and use of a consistent package design through the years have created a well-established reputation and strong recognition. Many people today associate the product with promotions of former years, because big stars of the entertainment world were featured. Among the memorable programs and performers that helped make Wonder Bread sales big were the "Happy Wonder (This article continued on page 198)

GOOD AMBASSADOR for Wonder Bread is routeman. Truck, of course, is travelling billboard. Routeman sees that bread is well displayed and is the key figure in a system assuring that only fresh bread is sold.



PHOTO COURTESY FORD MOTOR CO.

Nabisco's seal of recognition

CONSPICUOUS NEW TRIANGULAR EMBLEM ON EVERY
NATIONAL BISCUIT PACKAGE HELPS ADVERTISED
LEADERS SELL THE REST OF THE LINE

Many firms selling a wide variety of products today are spending the greater part of their advertising budgets on a few nationally advertised leaders and depending more and more on family resemblance of the packages to help sell the others.

This is true of National Biscuit Co., which puts its largest advertising effort behind Premium Saltine Crackers, Ritz Crackers, Nabisco Graham Crackers, Oreo Creme Sandwich and other sweet varieties, etc.

For a long time the company has been looking around for a design device that could give its entire line a more conspicuously similar identity so that its nationally advertised varieties would help carry those less advertised.

After considerable study, the company believes it has found the answer in a new bright red triangular seal, created by one of the country's leading designers, which incorporates the famous Nabisco trademark and has now been adopted to span the upper left corner of all packages.

The company reports this packaging program as one of the biggest projects Nabisco has ever undertaken. Every package is being given the new treatment. Many of them are already on the market and by the end of 1952, it is stated, practically all of the carton and cellophane varieties (more than 200) should be on the market.

Since its founding, National Biscuit Co. has been using its familiar seal in various ways to give a similarity of identity, but in recent years the growth of self-service merchandising has made it even more important to use a device that will display Nabisco more prominently on the face of all packages. A comparison of old and new packages shows the quick iden-

tity that is obtained by the use of the new triangular device, which in addition to the Nabisco seal carries a diagonal band reading clearly, "National Biscuit Company." This new treatment apparently reflects a trend that has been noticed in other fields, namely, the use of a strong identifying design in the upper left corner.*

Another innovation for the Nabisco packages is the selection of an overall, solid-color background for the seal on end panels, thus giving it not only more prominence but a larger area for price spots. Cleaner, less-cluttered appearance has been achieved for many packages by copy rearrangements and by such treatments as using only the R in a circle as the registered trademark notice under brand names.

A great many of the packages will retain their basic features with only minor changes to provide for the triangular seal. Others, however, will be completely redone, depending on specific requirements.

The Nabisco red has been changed to a lighter and brighter shade so the eye will be attracted more quickly.

As the new packages go to market, the triangular seal is being incorporated in all Nabisco advertising and promotion material. In time it will appear on stationery forms, delivery equipment and wherever it can be used effectively. And consumers will be assured that they are buying Nabisco products wherever they see the famous red seal in a corner triangle on a package.

CREDIT: Design program, Raymond Loewy Associates, 488 Madison Ave., New York 22.

* See "Magazine-Cover Cartons," MODERN PACKAGING, April, 1952, p. 86.



UPPER LEFT-HAND CORNER of every package will carry the new bright red triangular seal, unmistakably identifying it as a National Biscuit Co. product.

CELOPHANE PACKAGES get the same new treatment and also identity on paperboard headers.



POSTAL PAINT SEAL



APPROVAL IS STAMPED on metal ring with tear tab illustrated (right) before its application to the can top and (left) after sealing in place.

SEARS WINS POSTOFFICE APPROVAL FOR A NEW RING OVERSEAL

WHICH OBLIGATES SOLDERING LIDS FOR PARCEL POST SHIPMENT

Shipping cans of paint by mail in the volume handled by large mail-order concerns took on some serious new problems in the summer of 1949, when the U. S. Postoffice Dept. ruled that conventional can lids must be soldered to the top of the can at several points to eliminate the possibility of accidental opening and leakage in transit. Individual soldering of the cans proved to be a costly and time-consuming operation. Now Sears, Roebuck & Co., working in cooperation with a leading can supplier whose engineers developed the idea, has adopted a new device which eliminates the soldering bottleneck, improves the appearance of the packages and seals the cans securely at a fraction of the former cost.

The new sealing method, developed at the request of Sears and pioneered in use by that organization, has been approved by the Postoffice Dept. It involves the use of a ring-style overseal which is applied to the tops of the cans by means of a small, easily operated closing machine. The tamperproof overseal, extending over the lip of the regular friction plug top

of the can, is quickly clinched down over the top edge, making it impossible to remove the can closure without first taking off the seal. Attractive in appearance, the sealing ring is also superior in performance to intermittent soldered joints, since it exerts uniform pressure all the way around the rim of the container. Furthermore, it permits quick and easy removal of the lid without damage.

The overseal is designed with a breakaway tearstrip which facilitates removal when the can is to be opened. Scored at two points (see photos), the seal is easily broken when the tear tab is grasped with a pair of pliers or lifted up by means of a screw driver inserted through the slot near the end of the tab. Following removal of the seal, the pry-off lid is then taken off in the usual way.

Sears, Roebuck is now using the new-type overseal for all mail-order shipments of paint in gallon-sized cans, having installed the necessary closing equipment in all six plants which supply paint to the company. It is also planned to extend the method to quart, pint and half-pint

cans in the near future. Seaming machines for the quart-sized cans will be equipped with interchangeable chucks to handle the smaller units. Operating on the same general principle as employed in closers for home canning, except that they are powered by an electric motor, the seaming machines rotate each can several times as they fold the edge of the overseal down over the rim of the can. The can supplier has slightly modified the top bead of the gallon containers to provide a firmer attachment to the sealing ring.

Sears points out that the new-type overseals, including labor involved in application, cost only about one third as much as soldered seals when blackplate cans are being used and about one-half as much as applying soldered seals to tinplate cans. The differential results from the fact that with blackplate the surfaces to be joined must first be abraded with a file or grinding tool so that the solder can get a grip on the base metal. On the gallon-sized cans, the tamperproof overseals are applied about eight a minute; with quarts and smaller cans,



SEALING RING is laid over the top of a regular friction-ping lid, which is closed in conventional manner.



SEAMING MACHINE is used to clinch the sealing ring in place as the can is rotated by an electric motor.

faster application may be expected.

Before applying for permission to use the new-type overseal, Sears conducted extensive tests which proved its protective features. Drop tests were made from a height of 6 ft. onto concrete with filled gallon cans weighing more than 15 lbs. Cans were dropped successively until failure occurred and were oriented to fall on sides, edges and head-on. Results of these tests convinced the company that with the overseal in place, cans could be virtually destroyed before the overseal and closure would give way.

The Sears tests were confirmed, on behalf of the Postoffice Dept., by the U. S. Bureau of Standards. Following the successful performance of the overseal in these official tests, the Postoffice Dept. in March, 1951, granted a special approval to the new-type seals. Notice of approval is embossed directly on the rings for the information of postoffice employees. At present, due to NPA restrictions, the overseals are being fabricated of standard weight lacquered black-plate. Whether they are made of this

material or regular tinplate, the method of application is identical, since no soldering is involved.

As the first user of the new-type seals, Sears, Roebuck plans to extend their use as far as supply conditions permit. At present, increased use of the seals depends partly upon availability of cans with top seams modified to accommodate the seals. In the meantime, soldering will continue to be used on those containers which cannot be equipped with the overseal.

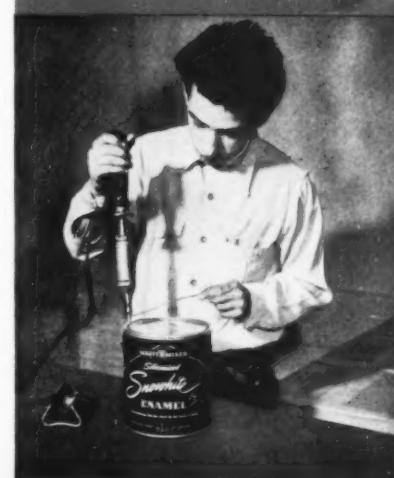
The safety rings would not be required during shipment of the cans of paint from manufacturing plants to the Sears mail-order outlets, since these shipments go forward in corrugated containers by truck or rail freight. They are required only when cans of paint are placed in the mail. But in order to simplify operations and centralize application of the overseals, the protective closures are regularly applied to the cans before they leave the manufacturing plants.

CREDITS: Cans and tamperproof overseals, Continental Can Co., 100 E. 42 St., New York. Closing machines, Dixie Canner Co., Athens, Ga.

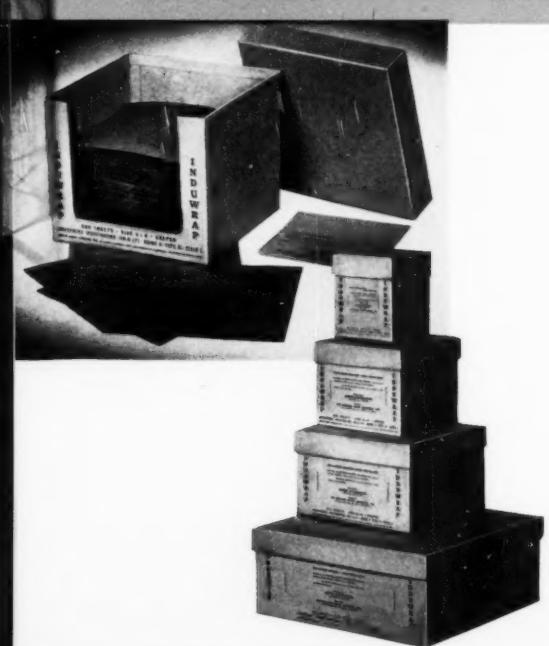


REMOVAL is simple, by means of a screw driver or a pair of pliers applied to tear tab. The plug lid then comes out smoothly.

The Old Way



Modern packaging DESIGN



Colorful cellophane sells macaroni

Colorfully printed cellophane packages, stacked in a prominent store position where they are brought to the attention of the impulse shopper, have resulted in more than a 100% increase in sales of La Premiata Macaroni products, according to the firm's sales manager. The switch to cellophane, the company reports, took these products off the shelves and brought them out on display counters and racks, where they sell faster. There was some resistance from grocers who believed that cellophane packages couldn't be stacked, but it has since been proved that the bulk displays are practical from the retailer's point of view.

The package design makes mass use of a brilliant solid blue color on the wrapper ends—a device to attract the attention of the impulse buyer. The product is visible through the clear cellophane, letting the shopper know at a glance which of the company's 60 types of macaroni product she is buying.

CREDIT: Wrappers, Milprint, Inc., Milwaukee, Wis.

Time-saver on the production line

An extensive survey and time-motion study is reported to have proved conclusively that efficiency on the packing line has been stepped up 35 to 40% by the use of this new dispenser package for cut-to-size Grade A creped-to-stretch anti-corrosive greaseproof paper which meets Government specification JAN-B-121 for protective packaging of metal parts. Previously this protective paper had been supplied only in roll form. The Angier Corp. now supplies the material in cut-to-size sheets 6, 9, 12 and 18 in. square and The Noland Paper Co., Inc., distributes the sheets packaged 500 to a two-piece paperboard box with a break-away face that allows easy access to the material by the packaging operator. The reinforced box is exceptionally strong; 20 or 30 units may be stacked without crushing. Face of the box is clearly imprinted with size, quantity and specification the material meets. Cut-to-size sheets enable exact determination of packaging cost.

CREDITS: Package, The Noland Paper Co., Inc., and Flinkote Co., both of Los Angeles.

HISTORIES

Vinegar bottle with re-use appeal

The new rounded-square, wide-mouth quart jar introduced by the National Fruit Product Co. for its White House Vinegar was designed to appeal both to the housewife and to the retail dealer. For the housewife, it provides a container that is easier to handle and easier to store, and one that has re-use value. For the retailer, the new container is ideal for quick, safe handling; its 63-mm. metal cap provides ample space for rapid price stamping and it takes a minimum of shelf space to create a distinctive and appealing display. The wide mouth of the jar gives the container real re-use value as a handy jar for mixing baby formulas, fruit juices, salad dressings, as a water container, etc. The jars have measure marks in pints and ounces blown in the glass for convenient measuring purposes. The new shape takes up less refrigerator space and the tapered shoulder facilitates pouring.

CREDITS: Jar and cap, Armstrong Cork Co., Lancaster, Pa.; Label, U. S. Printing & Lithograph Co., Cincinnati, Ohio.



New way to dispense steel wool

Steel wool for industrial use is now packaged in a convenient-to-sell and easy-to-use dispensing package by James H. Rhodes & Co., manufacturer of Beaver steel wool for over 35 years. Traditionally, steel wool has been packaged in an open-end sleeve with no brand identification and was placed under counters or in storage rooms by the dealer. The new Beaver Dispensa-Pound package brings the product out on the counter and permits display of brand name. The 1 lb. of steel wool in the carton is a continuous length of ribbon that feeds out through a dispensing opening at one end. It is no longer necessary to open the entire package to cut off small portions as needed. An arrow on the side points to directions on the top panel for opening the dispenser: "First press in side perforations—press here—lift tab." A die-cut opening in the front panel provides a testing window where the actual product may be seen and examined. A chart on the back shows the proper grades for various uses. Ends are clearly marked for the grade contained.



Theme-song packages

CROSBY'S MUSICAL SIGNATURE GOES RIGHT TO STORE COUNTERS

ON PACKAGES FOR A WHOLE LINE OF PRODUCTS CALLED "BING'S THINGS"

Latest business venture of Bing Crosby, America's long-time favorite songster, is a new company called Bing's Things, Inc., Hollywood, Calif. The purpose is to market a widely diversified line of packaged toys and games, wearing apparel, lunch kits, photographic kits, razor kits, toiletries, handbags and novelty "things," mostly retailing under \$5 and all under the name of Bing's Things.

The undertaking is the result of overtures from creators, designers and inventors who sought a means of having their products merchandised and distributed nationally. Entirely apart from the Crosby Research Foundation, which causes merchandise ideas to be crystallized through research and experimentation, Bing's Things is concerning itself only with patented and completed products seeking a way to be channeled to the consumer.

The prime requisite is that each product be completely distinctive

from anything presently on the market. And the same goes for the design of Bing's Things packages.

The fact that all promotion, advertising and merchandising will center around the significance of the name made it seem most essential to company executives that a package family design be selected to capitalize to the fullest on the Crosby tie-up at the point of sale. Although this thinking resulted in a few unforeseen complications when the design had to be adapted to meet the needs of individual products, the high degree of success attained with this approach—despite doubting Thomases who said it couldn't be done because of the diversification—is one of the outstanding features mentioned by merchandise buyers who previewed the line in New York recently.

As might be expected, the design theme has been developed around a musical motif. The dark royal blue and yellow-gold color scheme, for example, was inspired by Crosby's fa-

mous signature song, "When the blue of the night meets the gold of the day . . ." Similarly the use of musical notes and staff lines as part of the over-all background design is an extension of their appearance in the bar-of-music trademark of the company.

A graceful lyre symbol as the focal point of the design is of special interest aside from its musical connotation since it is used as the major copy area wherein identification, product name and selling points are stressed.

The closest identification of Bing in the design itself comes from a small silhouette caricature set in a circle which Larry Shea, general manager of the company under whose direction the packaging was developed, affectionately refers to as the "bug." The outline of a man's head, topped with a slouch hat, a pipe jutting out at a rakish angle from one side of the featureless face and a loud-patterned sport shirt are features in the caricature that typifies Crosby so suc-

LYRE SYMBOL is always a focal point to highlight the product name and selling copy. It is used on the die-cut cover of the "Operations Attack" toy package. On the Kit-So doll package it is used to form the shape of a die-cut window.



BING CROSBY with the blue and gold packages, inspired by his famous song, "When the blue of the night meets the gold of the day." The bar of music with company name, in foreground, is trademark.



ANOTHER ONE OF

b IN p's
THINGS INC.
HOLLYWOOD CALIF.

cessfully that further clues are considered unnecessary.

All of Bing's Things are packaged in display and window-style cartons and boxes except for a few of the items in the wearing-apparel group. The decision to use the die-cut display cartons as widely as possible, according to Mr. Shea, was based on the company's preliminary market research that indicated retailers are more likely to utilize this type of packaging in setting up counter, aisle and window displays than cards or other display material, especially if there are no detail men available to follow through on the use of such material.

Various adaptations of the basic design to each of these package types are illustrated to show how the lyre symbol is used as a die-cut pop-up in the set-up display cartons and as the window section in other packages.

Two excellent examples are the packages for Kit-So and a new device for opening bobby pins, called "Bob-O-Ring." For the Kit-So package,

which contains a small, flexible, skin-textured plastic doll, dress materials and patterns, thread, thimble and buttons with instructions for making four costumes, a window carton is used so that shoppers can see at a glance these contents and what their purpose is without opening the package. The display carton containing the bobby-pin openers—the device is mounted on a finger ring which can be set in a suction cup attachment if the user wishes to keep it in a fixed position—is basically a counter merchandiser. The die-cut, scored cover folds back to display the individual devices inserted in a die-cut platform. Two illustrations flanking each side of the lyre symbol on the back piece show exactly how the openers work. On other packages the decorative design includes similar illustrations or informative copy spots—highlighted by printing them a bright red—to explain the product's use and its features.

The lyre symbol is not only featured on the containers, but on hang-

tags, garment labels, stickers, etc., that have been designed to assure brand identification of items such as the raincoats and rainsuits which are packaged in carrying pouches.

Because Bing's Things, Inc., is primarily the marketing and merchandising organization rather than a manufacturer, the purchasing policy on packaging materials was one of the early problems faced by company officials. The question was whether the four manufacturers affiliated with the company should each purchase the packaging needed for their particular products or whether a centralized purchasing plan should be organized. After a thorough study of comparable situations, it was decided that the latter policy offered more advantages not only from a cost standpoint, but also because it permitted greater standardization and uniformity to be exercised in the control of color, sizes, materials and printing. The acceptance of this policy has permitted the ordering of all packaging from one supplier, which worked with the company and the product manufacturers right from the beginning in setting up the materials and printing specifications.

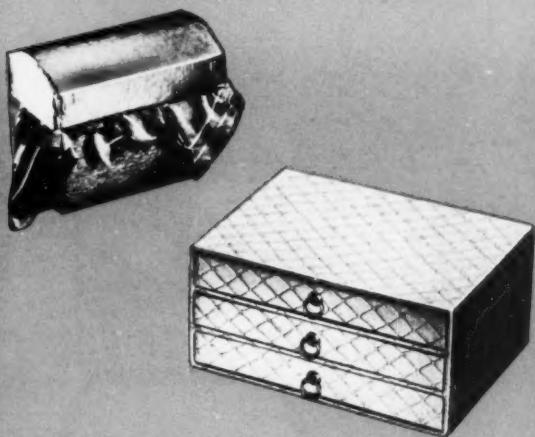
CREDIT: All packages supplied by Fibreboard Products, Inc., 1789 Montgomery St., San Francisco.

CLOSEST IDENTITY to Crosby on the packages is a silhouette caricature of a man's head, with a slouch hat and pipe jutting out from a featureless face above loud-patterned sport shirt—identifying symbol of all packages.





SEASONAL PROMOTIONS offer many opportunities for intriguing packaging. Kimball's miniature red box for lipstick-red hankies was so successful that it was adapted to Valentine promotion with hinged set-up box for display.



HANDKERCHIEF WARDROBES are being suggested. Treasure-chest box (left) was used at Amos Parrish fashion clinic. Three-drawer box (right) has also been considered for future promotions.

Handkerchiefs

THEY OFFER A CHALLENGE TO DECORATIVE PACKAGING TO DO THE KIND OF GLAMOUR JOB THAT HAS BEEN DONE FOR OTHER GIFT LINES

A field that is literally crying for new ideas in packaging is the handkerchief industry. One of the currently announced purposes of Handkerchief Promotions, Inc., a trade group sponsored by more than 50 leading handkerchief manufacturers and textile mills supplying the handkerchief trade is "to act as a clearing house of information for designers and packaging firms desiring data on either mailers or the development of packaging ideas that will help to sell more handkerchiefs."

Oddly, the promotional advantages of the decorative package, so successful in promoting hundreds of other kinds of merchandise in gift classifica-

tions, have been practically overlooked so far as a medium for selling handkerchiefs, despite the fact that more than 60% of the estimated \$100,000,000 annual handkerchief sales are gift purchases and a large part of the remainder includes impulse purchases as fashion and good-grooming accessories.

Handkerchiefs, for the most part, have been sold off the counter in bulk, with the retailer furnishing a traditional flat square box. There have been some boxed assortments of handkerchiefs put out by manufacturers, folded to show off the designs of the handkerchiefs or garnished with paper-lace doilies, but still in the

traditional square boxes that everybody recognizes as a gift of handkerchiefs before the box is opened. These packages provide very little impulse appeal at the point of sale.

Some retailers have improved on traditional ideas by supplying attractively printed envelopes that can be used as mailers, such as are supplied with a purchase of one or two handkerchiefs at New York's Lord & Taylor or B. Altman & Co. Also some stores have intrigued the handkerchief shopper with decorative boxes of interesting shapes, such as colorfully covered miniature hat boxes, etc., which are sold at a nominal price as a gift package for handkerchiefs.



WINDOW-BOX cover shows what can be done with conventional-shaped box for M & K Handkerchief Co.'s children's handkerchiefs. Designs showing through the transparent openings tie in with the circus illustrations. Box cover is suggested for re-use to frame favorite snapshots.

CHILDREN'S LINES were among first to experience successful results of packaged presentations. The Circus-Time package holds seven handkerchiefs, one for each day of the week, packaged for both boys and girls.



Only recently, however, has the manufacturer of handkerchiefs been giving serious consideration to the possibilities of clever pre-packaging of a single handkerchief or an assortment to aid store promotions for special gift purposes or special occasions, such as Christmas, Valentine's Day, St. Patrick's Day, Easter, Mother's Day, Father's Day and all the other gift days through the year.

The excellent job that is being done in the styling of handkerchiefs—namely those with topical and occasional appeal, such as the irresistible stylized pictorials of New York and the Christmas handkerchiefs designed by Tammis Keefe, the Carl Tait mottos, the René Hubert designs—makes them ideally suited for the decorative presentation package that will add glamour to the handkerchief counter as well as to aid in taking handkerchiefs out of the routine class.

Merchandisers of children's hand-

kerchiefs were among the first to experience the successful results of packaged presentations. Striking examples are the pop-up folders for packaging four "Circus-Time" handkerchiefs and the "My Busy Week" story-book packages containing seven handkerchiefs, one for each day of the week, packaged suitably for both boys and girls. Other manufac-

turers have put out clever packages with child appeal in constructions where the package becomes a toy or a cut-out.

A pioneer in a novelty package promotion for grown-ups is J. H. Kimball, Inc., which came out recently with its "Lipstick Wisper"—a tiny 2½ in. square set-up box containing two (This article continued on page 223)

COUNTER merchandisers with mailing folders and envelope sachets are successful aid to retailers in boosting the sales of handkerchiefs.



PACKAGING

1



2



3



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6



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PAGEANT

1 Size range of Wagner Ware glass covers can be seen at a glance in this efficient corrugated counter display carton which also serves as a pre-pack for a set. The strong, one-piece, die-cut construction permits quick, easy folding. Self-locking tabs hold the carton firmly open for display. Printing is in dark blue and red on light blue. Carton, Hinde & Dauch Paper Co., Sandusky, Ohio.

2 Converse Mineral Paste Silver Polish, for years sold to the railroad and hotel trade, is now available for over-the-counter merchandising in a re-usable plastic container. Red styrene forms the base of the new container. The closure is polyethylene printed in blue and white.

3 A paperboard tray and transparent window-sleeve container provides an interesting way to sell as a unit six ready-to-eat, individual-serving cups of fruit gelatin desserts marketed by Naar Food, Inc. The tray has a double reinforced bottom and triple-thick ends for maximum stacking strength to protect the individual cups. Interior and exterior of the package are highly waxed to protect the package in refrigerated display cases. "Tripl-Tite" container, Standard Folding Trays Corp., Brooklyn.

4 Gibson's Pure Fruit Wine Sampler displays three 2 5/8 pint bottles of assorted berry wines in a self-selling package designed to increase sales. After sampling the three smaller bottles, customers may then purchase their favorite in the regular 4 5 bottle. The three bottles are visible through a die-cut opening in the face of the carton; recipes for using wines in cooking appear on the back. Bottles, Owens-Illinois Glass Co., Toledo, Ohio, and Glass Containers, Inc., San Francisco. Metal closures, Owens-Illinois. Cellulose sealing bands, Sylvania Div., American Viscose Corp., New York. Carton, Paperbox Corp., Oakland, Calif.

5 A conventional set-up box fitted with an inner display panel and a swing-back easel solved the problem of an inexpensive gift container that would protect and display Silver-Chamberlin Co.'s "Buttercorn" brushes for buttering corn-on-the-cob. Color scheme of the box is a rich yellow and green. Package, Dennison Mfg. Co., Box Division, Marlboro, Mass.

6 Special color-print separation developed in cooperation with the photographer is reported to be responsible for the unusual sharpness of reproduction and full-color values on this new-style Snow Crop wrapper for cauliflower. The new design is being adopted for Snow Crop Marketer's full line of vegetables. Wrap, Western Waxed Paper Div., Crown Zellerbach Corp., San Leandro, Calif.

7 A realistic illusion of a "Chicken in a Basket" is created by the design of the cellophane wrapper used by Perry Bros. for packaging their cut-up and packaged fresh chickens. The outer border of the wrap is printed with a yellow and brown basket design; the center portion is unprinted, giving a "window" effect. "Cellulin" printed wrap, Shellmar Products Corp., Mt. Vernon, Ohio.

8 Both surface design and package form have been changed for the frozen seafood products marketed by the Seapak Corp. The new package consists of a paperboard box overwrapped with five-color, gravure-printed waxed paper. Face of the wrap carries a large, full-color illustration of the product ready for serving. The red pilot wheel trademark appears five times on the package. Wrap, Marathon Corp., Menasha, Wis.

9 Oscar Mayer & Co. is now marketing chili con carne packaged in a transparent casing of saran film. This plastic film was selected because it possesses a low moisture and gas transmission rate. A single ply of the film is said to preserve the natural flavor of the product. To open the package, the casing is cut just inside the metal band and split lengthwise. Saran film, The Dow Chemical Co., Midland, Mich. Paper label, Strauss Printing Co., Madison, Wis.

10 Development of special decal inks reported to adhere permanently to polyethylene has enabled McKesson & Robbins to reproduce, by the use of a decalcomania label, its multicolor plaid trademark design on its new polyethylene squeeze-bottle for Tartan Suntan Lotion. This four-color decal, according to the producer, provides an economical new method for multicolor labeling on polyethylene. Decal labeling, Poly Perm Printing, Inc., New York. "Plaxpak" bottle, Plax Corp., Hartford, Conn.



Sack-cloth tricks

GAILY PRINTED FLOUR AND FEED BAGS READY MADE AS TABLECLOTHS,

APRONS AND PILLOW CASES POINT TREND TO SPECIALIZED RE-USE APPEALS



BEST SELLER since 1948 in a 10-lb.-size flour bag for J. H. Emerson, co-owner of By-Ryt Grocer No. 4, Memphis, is one adopted by Buhler Mill & Elevator Co. for Dixie Lily flour that rips into a useful table napkin with stripes along the border.

HEMMED TABLECLOTH of generous size is provided ready to use simply by ripping open this bag for Pay Way Feeds. The printed paper label comes off the floral-printed cotton quickly when material is soaked in water.

One of the most amazing promotions of packages for re-use continues to be that of the printed cotton textile flour or feed bags that the housewife can remake into smart dresses for herself or clothing for her children.

Last year, according to the National Cotton Council of America, 125,000,000 feed and flour bags of gay cotton dress-print material were snapped up by economy-minded, style-conscious home dressmakers who still clamored for more products packaged in these useful containers.

But now, in addition to the dress-print materials, cotton bags are being made with a number of "built-in" re-use appeals to intrigue the farmer's wife and thus attract more customers to the products of the users of the bags and to hold volume for the textile-bag industry.

These ideas are concerned with a trend that appears to be taking hold in other fields of packaging as well—that of promoting a specific re-use for



a package, such as a shaving-soap bowl that is, in reality, an ash tray; the glass container for jams or jellies that is a cocktail glass, or the Borden plastic cheese boxes that are suggested as bases for crocheted handbags in the yarn promotion of Heirloom Needlework Guild in cooperation with the Borden Co. (see MODERN PACKAGING, "Elsie Borden—Needlewoman," Dec., 1951, p. 88).

Textile bags are suited to a wide variety of such ideas. For instance, some flour manufacturers are now putting up flour in 25-lb. bags of printed cotton that can be converted into an apron when the contents are emptied. No sewing is required. All you have to do is rip the bag open. The drawstring tie for the apron is ready made in the bag. The manufacturer simply affixes his own paper labels which are easily removed. The bags are made in a variety of printed designs and colors including stripes, polka dots and decorative bands.

A new 100-lb. feed bag rips open after being emptied into a colorful tablecloth, completely hemmed, ready to use. These bags are also printed in a variety of colors and designs.

Other firms are using flour bags in 50- and 100-lb. sizes, made of smooth, strong bleached cambric with 6-in. widths of solid color at one end that are practically ready for re-use as pillow cases. The housewife merely turns under half of the border

for a hem. The bags are printed in four attractive colors—rose, green, blue and maize—with a dainty embroidery pattern above the color border. For women who like to embroider, there are other bags with embroidery designs.

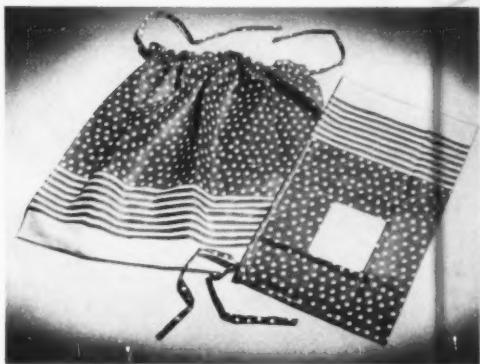
Buhler Mill & Elevator Co., manufacturers of enriched Dixie Lily flour, are selling this product in a 10-lb. cotton bag that rips into a useful table napkin with red or blue stripes along the border. Dealers are devoting prominent display to this item, it is reported.

Salvaging the cotton bag for re-use in the home is no new idea. For years housewives have used the empty sacks as tea towels or aprons. The

birthplace of the glamourized printed bag has not been established definitely, but many believe it was inspired by Plant Mills, St. Louis, Mo., a now-liquidated flour plant which used gingham to package its Gingham Girl brand of flour in 1920.

The possibilities went almost unnoticed, however, until the late '30s and during the war, when textiles were scarce. Since the war the printed bags have become a very important means of aiding the textile industry to maintain its position in the packaging field despite competition from bags of other materials.

The textile-bag industry is the third largest single user of cotton (*This article continued on page 220*)



AN APRON—ready with a drawstring—is made with no sewing from this 25-lb. bag when contents are removed. You simply rip the bag.



PRINTED EMBROIDERY design decorates the top border of these cambric bags for Superior Egg Mash put out by Superior Feed Mills, Oklahoma City, Okla. All that's necessary after contents are removed is to turn under half of the printed border and hem.

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Pick-up for sales

SAVOY'S 12-CAN CARRY-CARTON TAKES ITS DIETARY FOODS

OUT OF THE GROCER'S DOGHOUSE AND INTO A BROADER MARKET

Give the customer a convenient carry-home-type carton with plenty of sales punch and you have laid a sound basis for multiple-unit sales. The outstanding success of this packaging approach, long since verified by the experience of soft-drink manufacturers and brewers, has not escaped the attention of alert producers of food and other products.

Early this year Steele-Wedeles Co., Chicago, a major factor in wholesale food distribution since 1862, pioneered the use of a carry-home, multiple-unit package in a completely new field—that of special-diet foods, packed under the well known Savoy label. The packages, which contain a dozen 8-oz. tins of assorted dietetic-pack-style fruits, have been so well received during their introductory period that Steele-Wedeles sales officials are considering the preparation of similar packs of special-diet vegetables and variety-type carry-home packs for small families.

Savoy's Special Diet Pickup Pack, as it is called, was launched only after a careful study of the special sales problems and potential market for dietetic-type foods. These are foods put up in a water-type pack rather than in the usual syrup. They are packed expressly for persons who are on a reducing diet, those having diabetes and others who, for reasons of health, must limit the amount of sugar in their diets.

In connection with the development and adoption of the new carry-home package, which was spearheaded by Don M. Kositcheck of the Savoy canned foods department and Henry D. Hirsh, assistant sales manager, investigation turned up the fact that some 20% of the population urgently needs to lose weight and another 40% would like to lose weight. Added to this potential market for special-diet foods are approximately 12,000,000 diabetics in the U. S., who must adhere to a sugar-free diet.



INVITATION to 12-at-a-time purchase is the compact carton with a handle, containing an assortment of water-packed fruits appealing to low-calorie dieters. This eye-catching carton, printed in red, white and blue, moves a full case in four sales and requires minimum storage space.

Savoy's market studies showed that in order to obtain the unsugared food packs, many persons have come to rely upon special health-food stores. Neighborhood food stores frequently do not stock such items because of the excessive shelf space and added investment involved. There has been a trend, however, to buying these special foods in regular grocery stores if available, in order to consolidate them with other family food purchases and eliminate extra shopping trips and expense.

Savoy sales officials saw in this situation a merchandising opportunity too good to miss. The answer, they realized, was to step up unit sales of the special-diet foods without taking up unnecessary shelf space or requiring additional sales effort on the part of store clerks. The obvious solution was

a carry-home-type package containing a balanced assortment of the most popular special-diet foods, backed up with suitable newspaper ads and store promotion material.

As a result of Savoy's methodical approach and follow-through, the new Pickup Pack is now available in some 600 independent groceries in Illinois and nearby Midwestern states.

The pack of 12 cans retails for approximately \$2.35. In the Pickup Pack, special-diet foods are no longer treated as a merchandising stepchild, but are given a chance to move in real volume, turning them into a profitable item the grocer likes to handle. Only four sales are now required to move an entire case of 48 8-oz. cans.

Savoy sales records showed that peach halves, fruit cocktail and applesauce were the leading items in their

8-oz. special-diet fruits, followed by pear halves and apricots. Tests made with women employees of Steele-Wedeles indicated that a dozen cans, weighing slightly more than 6 lbs., would not comprise too heavy a package.

On this basis, the contents of the Pickup Pack were apportioned to include three cans each of the peach halves, fruit cocktail and applesauce, two cans of pear halves and one can of apricot, all of them put up in the water-style pack.

Construction features

The carry-carton itself is quite compact and involves several interesting construction features. Designed to hold two layers of six cans each, the carton measures only 8 by 5½ in. by 6¾ in. tall (with handle folded in), requiring less than a square foot of display space in the retail store. The surface design, worked out by the company's advertising agency, is handled in red and blue on white "carrier carton" stock, keyed directly to the red, white, blue and gold color scheme of the Savoy can labels. The strong color treatment attracts immediate attention in the store and quickly identifies the package. Blue is utilized as the essential background color, with red outlining an oval panel on the principal display faces and the Savoy logo type and being used on rectangular backgrounds for type matter on all vertical panels of the package. End panels list the assorted contents of the package and highlight the statement, "Naturally Sweet . . . No Sugar Added." Top flaps are solid blue except for a circular price patch and the copy, "Savoy Special Diet Pickup Pack."

The carton stock used is a special grade of opaque carrier stock, water-proofed for extra protection.

Through ingenious construction, the box manufacturer came up with a package which not only insures safe delivery of contents, but also greatly simplifies Savoy's packaging operations, enabling the company to pack four of the cartons in the same corrugated shippers in which straight packs of 48 cans of the fruit arrive from several California packers. As packed by the original canners, these containers hold two layers of 24 cans each, being spot sealed to permit opening and repacking without damage. In the Savoy plant, the items are assembled into the special assortments

and hand packed into the carry-home cartons, which have one glued seam and arrive flat for compact shipment and storage. Four of these cartons are then packed in each shipping box and a new end label is applied to the shipper, as illustrated in an accompanying photo.

The blank for the carton is designed so that the paperboard forming each side panel folds beneath to form the bottom of the package, then continues upward to create a vertical partition. Both layers of this partition extend sufficiently far above the top of the package to permit a die-cut handle arrangement, as illustrated. When the cans are packed in the box, the top flaps are folded outward and the two outside flaps, similarly die cut, are closed with their folded tabs inserted between the walls of the partition. This gives the package a flat top and keeps it sufficiently low so that the

cartons fit comfortably into the shipping container.

To place the package on display, the grocer has only to pull all the flaps into a straight-up position, fold the large flaps inward so that all four of the hole flaps stand upright, and push fingers through the handle, forcing the slot flaps all in one direction. When the package is lifted, part of the weight of the contents is borne by the vertical partition in the carton, making it impossible for the bottom of the carton to come open.

Store display material, printed in red, white and blue, is placed in each shipper, along with illustrated instructions on how to unfold the carrier and a printed folder carrying pertinent information for the grocer.

CREDITS: Pickup Pack cartons, Imperial Box Co. Div., Morris Paper Mills, Chicago. Labels, Calvert Lithographing Co., Detroit.

DESIGN permits four Pickup Packs to be shipped in the same corrugated case which carries a straight pack of 48 cans to Steele-Wedeles Co. from various California canners. The unusual construction of this carry-home carton gives reinforcement to handle through middle of pack.





DISPLAY GALLERY

Jumbo, the elephant—Nestle's Chocolate Co.'s motion display for Nestle's Jumbo Blocks—is an attention getter in theatre lobby candy stands, in candy sections of variety chains and in other retail outlets. Jumbo stands 16 in. high and swings his massive head back and forth leisurely. This battery-operated unit is inexpensive to run. Display, Einson-Freeman Co., Inc., Long Island City, N. Y.

Real balloons and puffs of canyon smoke made of sparkling fibre glass add zest to this lithographed paperboard unit for Calvert Reserve. The "big-top" display captures the excitement of circus season, pointing up the oversized reproduction of a bottle of Calvert Reserve circled by a fibre glass smoke ring as the "feature attraction." Display, Consolidated Lithographing Corp., Carle Place, Long Island, N. Y.

Toy-sized wooden boats with colorful posters for sails are promoting shoes made by the Portage Division of the Weyenberg Shoe Mfg. Co. The units are used in store windows and counters to promote spring and summer shoes. The dowel "mast" fits into a hole in the wood base. A display sheet is then threaded over the dowel, using the holes provided in the sheet. Two display cards are sent with each boat so that the retailer can change his display. Display parts are shipped in a flat carton complete with instructions for setting up the unit. Display, Milprint, Inc., Milwaukee.

An electric-clock motor and mercury switch which turns illumination off and on in proper sequence operates this interior-lighted Venetian-blind display for Old Hickory straight bourbon. With blinds closed, it reveals the Old Hickory medallion trademark. As the shutters open, the medallion disappears, interior lighting goes on and a convivial scene appears, floodlighted for emphasis. Lithography, Ketterlinus Lithographing Co., Philadelphia. Paperboard base, Avery Corp., Chicago. Animation, Haft & Son, Brooklyn. Artwork, Fredman-Chaite Studios, New York.





Roxanne, star of Sylvania's "Beat the Clock" TV show, dominates the latest counter display for the promotion of Sylvania Superflash bulbs. This six-color lithographed unit effectively combines product identity with package, which is reproduced on the display. Five actual bulbs, all of a different type and each identified on the display, fit into the base of the unit. Attention is called to the Sylvania identifying mark by the legend, "Always look for the Blue Dot." Display, Forbes Lithograph Mfg. Co., Boston, Mass.



A spring-summer promotion brought out by Canada Dry is this merchandising display unit captioned "Headquarters for Picnic Supplies," designed to encourage tie-in sales of related products, as well as carry-home cartons of ginger ale. It consists of a pre-fitted wrapper skirt which slips over four beverage cases to form the base of the display, backed up by a die-cut centerpiece. Display, Forbes Lithograph Mfg. Co., Boston, Mass.



Ice-cream sales have been boosted as much as 27% in stores participating in Midwest Dairy Products Corp.'s campaign to get display space for impulse items served with ice cream. This corrugated floor display has a silver background and red and blue overprinting. Displayed in this "Ice Cream Dessert Center" are cans and jars of fruits that can top a dish of ice cream. Display, Stone Container Corp., Chicago.

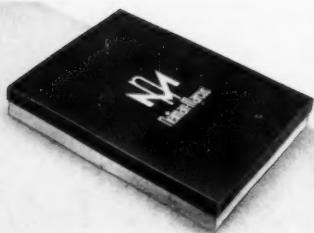
General Cigar Co.'s counter display for Robt. Burns Cigarillos does a three-in-one job: promotes the sale of the pocket-sized "Ten Pack," displays a regular box of 50 cigars and advertises the company's offer of a custom-built holder. Completely packed in the factory, the unit needs only to be opened and placed on the counter. A pre-cut slot in the top eliminates the need of a wire holder to keep the 50s box open. The entire unit is the size of a normal box of 50 cigars. Display, Lord Baltimore Press, Inc., Baltimore.

This small window display for Jacques Kreisler Mfg. Corp.'s Golden Fantasy ladies' watch band measures only 7 by 10 in., yet it has space for displaying an actual watch band when open. The die-cut, full-color lithographed display card shows a gloved hand holding a champagne glass with the face of the holder reflected in the glass. Copy is confined to the product name. Display, Einson-Freeman Co., Inc., Long Island City, N. Y.

Sales increases of between 400 and 500% for Ice Cream Cake Roll were reported by Newly Weds Baking Co. in the first week this three-dimensional display was used. The display is shipped as a flat card and the slices of cake pop out as the display is set up. This unit was a winner in the National Offset-Lithography competition of the Lithographers National Assn. Display, Milprint, Inc., Milwaukee.



19

first prize winners for general

RETAIL BOXES



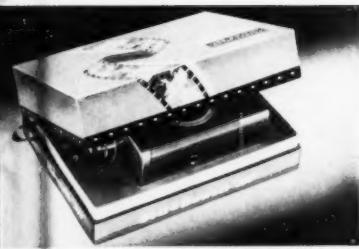
SPORTING GOODS



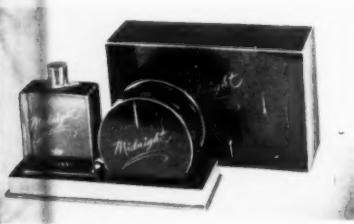
OFFICE EQUIPMENT



MISCELLANEOUS



PHOTOGRAPHIC PRODUCTS

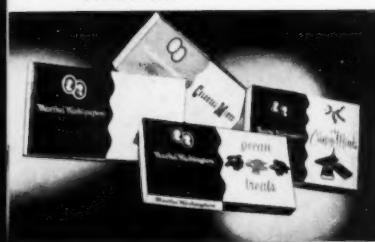


COSMETICS



SOAP

CONFECTIONERY



SET-UP BOX WINNERS

84 ARE SELECTED FOR N.P.B.M.A. AWARDS OUT OF

1,200 ENTRIES IN THE SECOND ANNUAL COMPETITION

Eighty-four awards were made in the second annual Set-Up Paper Box Competition, selected from more than 1,200 set-up paper boxes entered in the 1952 competition sponsored by the National Paper Box Mfrs. Assn. All entries are being exhibited this month at the 34th annual meeting of the association, May 11-14 at the Drake Hotel in Chicago.

First, second and honorable-mention awards consisting of framed scrolls were to be presented to winning paper-box manufacturers and their customers at the convention.

Judging took place in March at Association-Competition Headquarters in Philadelphia. Nineteen End Use classifications were judged in addition to Best Artistic Design, Superiority of Construction and Best Display Box. The latter three categories were judged on the basis of their qualifying titles; the End Use entries on the general functions of the set-up box—namely, protection of the product, appropriateness of the package, brand identification, convenience, economy and sales appeal.

A Grand Award Winner (to be announced in a subsequent issue of MODERN PACKAGING) was to be chosen

by the members present at the convention from the group of winners selected by the panel of judges.

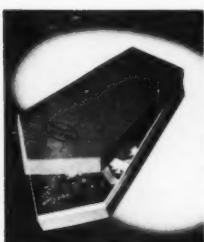
The judging panel consisted of Magnus Gaukerud, Container Corp. of America; Walter M. Hilliard, formerly with Dennison Mfg. Co.; Gustav Jensen, New York industrial designer; Howard Minich, U. S. Printing & Lithograph Co.; Robert S. Dunlop, Dominion Paper Box Co.; Martin Ullman, New York industrial designer, and Frederick M. Yost, John Wanamaker's.

The winning boxes and those receiving honorable mention in their respective categories are as follows:

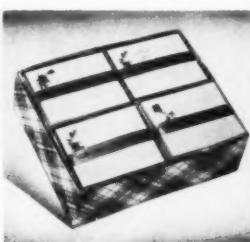
First Awards

Class A. General Superiority according to End Use: **Drugs:** To the Walter P. Miller Co., Inc., for Butisol Sodium box, McNeil Labs, Inc. Color appeal is provided by die-cut window and easy type of insert keeps vials in position. The package is used as a promotional give-away at various drug meetings. **Cosmetics:** to W. C. Ritchie & Co., for Midnight cologne and dusting-powder box, Lehn & Fink Products Corp. Midnight blue foil for both box and dusting powder integrates

superiority according to end use



WEARING APPAREL



STATIONERY



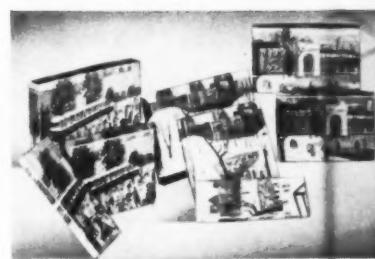
TOYS AND GAMES



DRUGS

package with product name. **Personal accessories:** To the Dennison Mfg. Co., for DeVilbiss Perfumizer box, The DeVilbiss Co. Immediate display of product in this box is made possible by a hinged base permanently attached to the lid. The box combines visual appeal and protection of product in transit. **Soap:** To Fair Martin Boxes, Inc., for toilet-soap boxes, Carolina Co., Inc. A family of soap boxes integrates box color and styling with the merchandise. The three-cake box features a scored platform in the lid which may be inverted for a display base. The two-cake box contains die-cut frame for display of soap in the form of pine cones. Eight-cake guest-size box protects beaded edges of soap by the use of compartments. **Food:** To The Bradley & Gilbert Co., Inc., for Goodwin's jelly box, Goodwin Preserving Co. Constructed in a way to protect the glass when used as a shipper, this box makes an attractive display. It is ideal for re-use in the home. **Confections:** To The Congress Paper Co., Inc., for Martha Washington candy boxes, Martha Washington Candies Co. Directed toward impulse buying, these packages are designed for the retail counter. Both company identification and graphical representation of the contents appear on

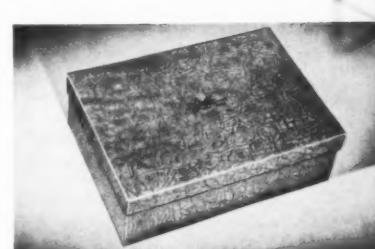
each cover. **Hardware:** To Frankenberg Bros., Inc., for electric-drill auger bits, Irwin Auger Bit Co. Constructed with a die-cut lid and perforated tray to hold the bits securely during transit and display, this package enables the buyer to see and touch the contents without opening the box. Easy carton-to-counter transfer lessens efforts of the retailer. **Photographic products:** To W. C. Ritchie & Co., for 16-mm. movie camera ("200"), Bell & Howell. This package was revised to overcome a major Bell & Howell packing problem. Appearing on the blue lid is an identifying strip of movie film, while sides of the box paper carry firm and camera name. This box may be used as a counter display. **Textiles:** To Grisby Bros., for place mats, dry-bottom coasters and towels boxes, Block House Linens. Lid of linen-patterned paper on which firm name is prominent and lettering in dark brown which is matched by the dark brown of the box proper, make for a most attractive family of textile boxes. **Hosiery and wearing-apparel accessories:** To L. Gordon & Son, Inc., for matching necktie and handkerchief box, Raxon Fabrics Corp. Attractive tie-shaped box with rich deep beige covering, suggesting quality merchandise and blending well with all merchandise



HOLIDAY BOXES



FOOD



FOOTWEAR



MAILING BOXES



TEXTILES



HARDWARE

PERSONAL ACCESSORIES



BEST ARTISTIC DESIGN—First Award



GIFT PACKAGE for Martex towel set has gold-foil base and telescope lid designed with harlequins and diamond-patterned decorative motif.

colors, is hinged to open for display of expensive matching tie and handkerchief sets. **Footwear:** To Newark Paper Box Co., for men's shoes with shoe trees and shoe bags, Johnston & Murphy. Specially designed to accommodate quality shoes, shoe bags and shoe trees, this handsome, de luxe shoe box is sturdily constructed to serve as a permanent closet accessory. The simulated leather covering has strong sales appeal to men. **Retail boxes:** To The Bradley & Gilbert Co., for Neiman-Marcus retail box, Booneville Mfg. Co. The rich chocolate-colored wrap blended with a shade of gold features the precise, well-placed Neiman-Marcus monogram on this outstanding retail box, which shows exceptionally fine taste in the choice of color and design. **Holiday boxes:** To the Regent Paper Box Co., for holiday retail boxes, manufactured for all retail stores. Three familiar New York scenes are printed on these holiday boxes to eliminate outside wrapping. The purpose of the boxes was to stimulate additional retail sales, stressing the value of outside appearance. **Sporting goods:** To Congress Paper Box Co., Inc., for fly fishing reel box, Service Screw Products Co. This green box has a die-cut base to hold the product and a telescope lid. The cover illustration of a fisherman using the product integrates product and package. **Toys and games:** To Walter P. Miller Co., Inc., for model locomono-

tive, Penn Line. Miniature locomotive parts for consumer assembly are packaged in this handsome cocoa-colored box. Cover has drawing of a locomotive in the upper left corner and prominent brand and product identification, all integrated with the product. Loading time is cut 50% and damage complaints were reduced considerably as the result of partitioning of contents. **Stationery:** To Walter P. Miller Co., Inc., for stationery box, John T. Murphy Co. Informal notes are attractively packaged in this gay plaid box, which is equipped with an easel on the back for better display. When the easel is locked, the package rests on the counter at an angle, displaying the merchandise to best advantage. To save counter space, four different designs may be displayed in one carton. **Office equipment:** To Van Ness Bros., Inc., for carbon-paper box, Burroughs Adding Machine Co. This red box with a black label bearing the product name in white is printed with a repeating sketch of a figure at the typewriter. It is constructed with a die-cut base which facilitates dispensing of the carbon paper. Brand identification appears in the lower right-hand corner. **Mailing boxes:** To The Mason Box Co., for drug-samples mailing box, Charles Pfizer & Co., Inc. Wire hoops in the base secure the lid on this green and white mailing box for samples of terramycin. Product is held in position during transit by an

inner die-cut platform. The lid bears product and brand identification and also shows additional artwork to integrate the product with the package. **Miscellaneous:** To American Coating Mills, for salad-bowl set, Grand Rapids Dowel Works. Salad bowls are held in place with die-cut platform. Gay green box with red ribbon on lid makes for appropriate gift buying.

Class B. Best Artistic Design: To Old Dominion Box Co., for Martex towels, Fairfax Mills. This gift package contains one bath towel, two guest towels and two wash cloths. The gold-foil base carrying the company name is covered by a telescope lid on which harlequins, appearing frequently on Martex boxes, tie in with the diamond-patterned decorative motif. The vertical box, open or closed, makes a counter display and holds the merchandise securely. The towels are protected and held in position by cellophane. Brand and product name appear on sides, top and base.

Class C. Superiority of Construction: To Paragon Box Co., for plastic blocks wagons, Greysaw, Inc. These plastic blocks are held in die-cut platforms in each set-up wagon. Thus, they are protected in transit from breakage. They are constructed for reuse value after removal of blocks.

Class D. Best Display Box: To Paris Paper Box Co., Inc., for table-tennis set, Harvard Specialty Mfg. Corp. This package is an achievement in box design which combines hardy construction with customer eye appeal. The lid cut-out raises to right angle for counter display. Open or closed, the box strikingly illustrates the product in black and red on a white background. When the lid is raised, the contents are neatly exhibited for direct handling.

Second awards

Class A. General Superiority according to End Use. Drugs: To Pacific Paper Box Co., for vitamin-mineral supplement box, Gorex Corp. **Cosmetics:** To F. N. Burt Co., Inc., for cologne collection package, Prince Matchabelli. **Personal accessories:** To Cambridge Paper Box Co., for Gillette Super Speed gift set, Gillette Safety Razor Co. **Soap products:** To Old Dominion Box Co., for Blair "Threesome" box, Morton Mfg. Co. **Food:** To Jamestown Paper Box Co., for Wisconsin cheese box, Wisconsin Chalet. **Confections:** To The Congress Paper Box Co., Inc., for three-tier candy box,

Marshall Field & Co. Hardware: To Paper Package Co., for screw-drivers gift box, Vaco Products Co. **Photographic products:** To Eagle Paper Box Mfg. Co., Inc., for Busch Verascope F 40 camera, Busch Precision Camera Corp. **Textiles:** To Old Dominion Box Co., for Martex towels box, Fairfax Mills. **Hosiery and wearing-apparel accessories:** To Van Ness Bros., Inc., for handkerchief box, Manhattan Shirt Co. **Footwear:** To Paris Paper Box Co. for men's sandals, Sherman Footwear Co. **Retail boxes:** To The Bradley & Gilbert Co., for Saks Fifth Avenue pajamas and shorts boxes, Booneville Mfg. Co. **Sporting goods:** To Paris Paper Box Co., Inc., for table-tennis set, Harvard Specialty Mfg. Corp. **Toys and games:** To Paris Paper Box Co., Inc., for greeting-card novelty, Phillips Publishers. **Stationery:** To Paper Package Co., for music boxes, Barker Greeting Card Co. **Mailing boxes:** To Walter P. Miller Co., Inc., for pharmaceutical-samples mailing box, Ciba Pharmaceutical Products, Inc. **Miscellaneous:** To Janesville Paper Box Co., for Parker "51" pens and pencils, The Parker Pen Co.

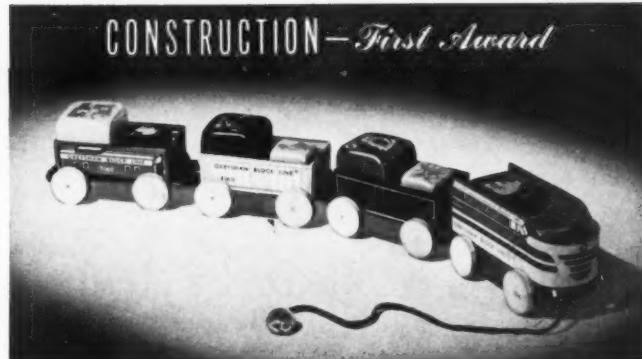
Class B. Best Artistic Design: Second award to Frank C. Meyer Co., Inc., for ladies' fashion shoes, Palizzio, Inc.

Class C. Superiority of Construction: Second award to Niagara Box Factory, for No. 9008 doll-house school box, Eagle Pencil Co.

Class D. Best Display Box: Second award to Friend Box Co., for boy's sports jacket, Cape Ann Mfg. Co.

Honorable mentions

Class A. General Superiority according to End Use: **Drugs:** To Walter P. Miller Co., Inc., for Hydrol Chemical box, Hydrol Chemical Co. **Cosmetics:** To W. C. Ritchie & Co., for Gilda Audrey powder box, Gilda Audrey Products, Inc., and to A. Dorfman Co., Inc., for Nostalgia perfume box, Parfum Monteil, Inc. **Personal accessories:** To Dennison Mfg. Co., for Zippo lighter box, Zippo Mfg. Co. **Soap products:** To The Central Carton Co., for soap box, The Hewitt Soap Co., Inc. **Food:** To Congress Paper Box Co., Inc., for cheese gift assortment (Thoroughbred's Choice), Sue Ann Food Products Co. **Confections:** To San Jose Paper Box Co., for mint cordials, Chase Candy Co.; to Utah Paper Box Co., for party-mix box, Sweet Candy Co., and to W. H. Albrecht Co., for variety of sweets, Gim-



PLASTIC WAGONS for toy plastic blocks are constructed for re-use value. The blocks are held in die-cut platforms in each set-up wagon.

bel Bros. **Hardware:** To Magnolia Paper Co., for swab rubber assembly, Mission Mfg. Co., and to Wayne Paper Box & Printing Corp., for kitchen ware, Clyde Cutlery Co. **Photographic products:** Consolidated Paper Box Co., for exposure meters, General Electric Co.; to Grigsby Bros., for Personal Stereo camera and filters, Sawyer's, Inc., and to Congress Paper Box Co., for movie camera, Ampro Corp. **Textiles:** To Indianapolis Paper Container Corp., for raincoat boxes, United States Rubber Co.; to Friend

Box Co., for boy's sports jacket box, Cape Ann Mfg. Co., and to Consolidated Paper Box Co., for sheet and pillow-case boxes, Pepperell Mfg. Co. **Footwear:** To Frank C. Meyer Co., Inc., for ladies' casual shoes, Lester Pincus, and for ladies' off-stage shoes, Capezio (two awards). **Retail boxes:** To The Great Lakes Box Co., for retail boxes, Taylor's. **Stationery:** To The William Koehl Co., for Christmas cards, The Gibson Art Co. **Jewelry and silverware:** To Shaw Paper Box (This article continued on page 209)



HARDY CONSTRUCTION and customer eye appeal are combined in this box for table-tennis set. Open or closed, the box illustrates product.



COMBINATION PACKAGE for oral-type terramycin includes hermetically sealed bottle of terramycin powder, diluent syrup (left), rubber fitting for mixing the two at time of prescription dispensing. Instruction label is torn off by pharmacist on dispensing drug under his own name.

ELIXER MIXER is screwed to the top of the diluent bottle and snapped on neck of terramycin vial. Shaking does the mixing. Special feature of the terramycin vial is interior silicone coating which permits all of the drug to drain free.

Wonder-drug marketing

PFIZER'S TERRAMYCIN PROVIDES AN EXAMPLE OF RAPID DEVELOPMENT

OF SPECIAL PACKAGES AND EQUIPMENT TO HANDLE THEM EFFICIENTLY

At the Chas. Pfizer & Co. plant in Brooklyn, the new antibiotic terramycin, which was announced in 1950, called for the rapid development of a complete new family group of packages as well as the installation of entirely new packaging lines involving the use of special unscramblers, labelers and cartoners to handle small, easily tipped containers traveling at high speed. The entire program, which features a number of packaging innovations, was conceived and implemented in a matter of

months. The tempo of the program gives an insight into both the requirements and accomplishments of today's drug packaging in meeting the challenges of rapid-paced medical discoveries.

One of the interesting features in the packaging of terramycin is the use of a drain-free vial that has a non-wetting interior surface. Drain-free vials are used by Pfizer in one of its combination packages which provides for the mixing of powdered terramycin and bottled diluent in orig-

inal containers. Thus, when the vial is emptied, the interior surface resists the clinging action of the antibiotic solution. The free flow saves time for the druggist in mixing the elixir and assures the full quantity of terramycin in the prescription.

The non-wetting surface is obtained by treating the glass containers with a silicone solution, which the packager applies in his own plant. Silicone-treated glass containers for drugs first appeared in volume about a year ago. Pfizer was one of the pioneer users

and today is one of the biggest users.

The packaging of terramycin in a combination put-up consists of two containers in a single carton—a 5-cc. vial containing the drug (1.5 to 2 gm.) in powdered form, the other a small bottle (10 cc. to 1 oz.) containing a fluid diluent. The reason for the dual-unit put-up is the fact that crystalline terramycin hydrochloride when packaged separately will maintain potency for two years or longer, but when mixed with its prescription diluent, the recommended period of full potency is only one or two weeks at normal room temperature.

The retail druggist, therefore, mixes the terramycin and diluent together at the time the prescription is filled. To facilitate the mixing operation, Pfizer last year introduced a handy "Elixir-Mixer." The mixer is a rubber collar that is screwed to the neck of the bottle of diluent after its plastic, screw-type closure is removed. The druggist then tears the aluminum cap off the vial of crystalline terramycin powder, pulls out the rubber stopper and snaps the neck of the vial into the free end of the rubber collar. Thus the bottle and vial are joined like an hour glass, permitting free flow of the contents from one container to the other when they are shaken.

After vigorous shaking for about 90 seconds, the diluent bottle is turned upright and the solution is allowed to drain from the powder vial. The special silicone coating applied to the interior surface of the vial facilitates complete, free drainage so none of the valuable solution is lost in clinging to the walls of the container. The mixer eliminates completely the use of the druggist's mortar and pestle and subsequent cleaning of these after use.

Another feature provided for the convenience of the retail druggist is a two-part label. One part is permanently adhered to the diluent bottle (which is the container the customer receives) and the other part is a tear-off flap containing mixing instructions, which the druggist removes and replaces with a label containing his store name and prescription data.

The vial of crystalline terramycin and bottle of diluent are packaged together in a tuck-end, folding paperboard carton. The carton has a glued-in divider that separates the vial from the bottle. The bottom section of the divider is die cut at one corner and

this die-cut corner is tucked in so that it forms a platform under the compartmented vial. Since the vial is not as tall as the bottle, the platform raises the vial so the caps of both containers stand level with each other at the top of the carton.

This might appear to be a minor feature when compared with the other more obviously important requirements for packaging terramycin. Actually, however, it marks the thoroughness with which Pfizer attacked its project of packaging for the trade, for it is highly important that the small vial of crystalline terramycin not be overlooked. This is not likely to happen when a druggist is handling a product with which he is familiar. Pfizer knew, however, that druggists would be unfamiliar with the new combination package of terramycin and diluent, and reasoned that the platform-raised vial would offer an extra margin of precaution and convenience.

The combination packages are, however, special dosage forms of the drug. The basic form is the capsule holding 50, 100 or 250 mg. of crystalline terramycin hydrochloride. The glass vials, bearing the Pfizer label and closed with a polyethylene plug, hold 16 of the 250s or 25 of the 50s or 100s.

Basic colors on the Pfizer labels and packages are blue and white for products intended for humans and terra



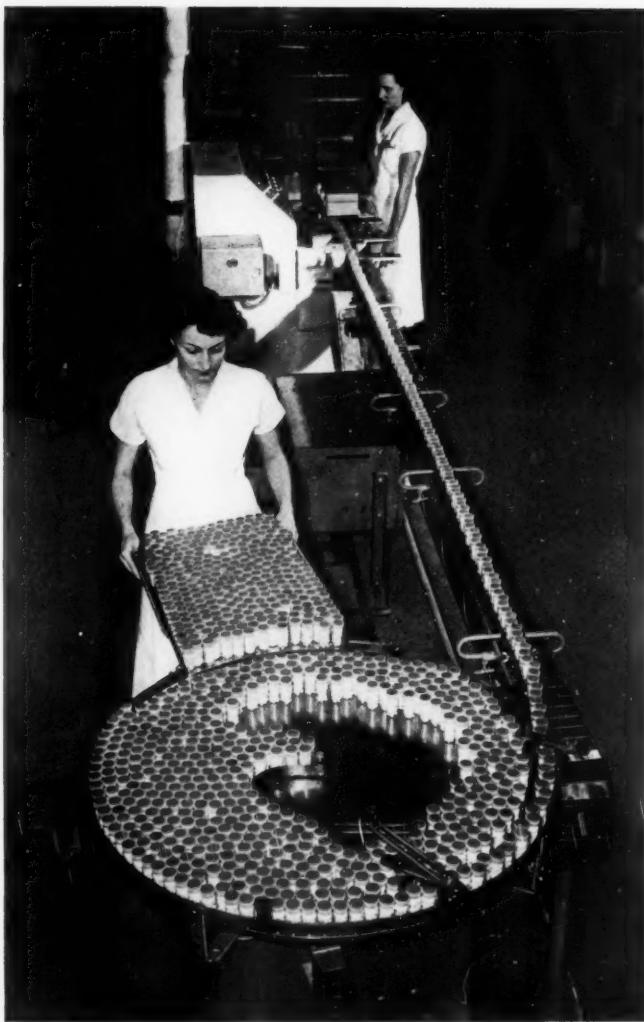
BASIC PUT-UP for capsules is this glass vial closed with a polyethylene plug-type closure.

cotta and buff for veterinary products. The Pfizer trademark—one well suited for the relatively small areas permitted for brand identification by the size of the average package—is a simply designed blue medallion-type emblem, bearing the words "Pfizer Quality."

Brand and product name, plus re-

PREPARATION of vials for filling includes washing and sterilizing in special room guarded by air locks and isolated from production areas.





UNSCRAMBLING of filled and capped vials is accomplished by special rotary machine which feeds them single file into conveyor to labeler.

quired information, of course, dominate the carton and label display surfaces and are printed in a legible, modern type face.

Many dosage forms

One of the advantages of terramycin is the fact that the product lends itself to administration in a wide variety of forms, including capsules, solutions, oral suspension, ointments, troches and tablets. In all, 15 different types of packages are used. This in

itself magnifies the packaging problem. The many put-ups, of course, greatly extend the range and convenience of application, because they provide for varying dosages as prescribed by the physician, permitting internal administration in several forms and external application to eyes, ears, nose and the skin.

One of the basic containers used in the packaging of terramycin—as well as other antibiotics—is the vial or small flat-bottomed, tubular, tapered-

neck glass container that generally is less than an inch in diameter and several times its diameter in height. As with many new drugs, use of small containers is dictated by the average prescription dosage.

The packaging operation

The many package forms used by Pfizer call for highly flexible operations employing a combination of manual, semi-automatic and fully automatic techniques. Vial washing, sterilizing, filling and sealing are performed with meticulous care in special rooms supplied with sterilized and dehumidified air. Sterility of the rooms is maintained by ultra-violet rays and complete isolation from other production areas.

Prior to filling, the vials, received from the manufacturer in bulk containers, are placed in washing and sterilizing machines and after several cleansing operations are further dry-heat processed to assure complete sterility. The silicone treatment providing a drain-free surface is applied at this stage of the operation, if required.

Details of the method used by Pfizer are not available at this time. However, according to manufacturers' reports, the silicones are supplied to a packager in the form of a fluid concentrate and are then diluted—with a common solvent, according to type of concentrate used. The solution then may be applied by dipping or spraying. The coating is baked to provide a finish said to be lasting and completely non-toxic. Silicones, it should be noted, are extremely effective release agents and extreme care must be taken not to coat surfaces that are to receive labels, for the silicones will interfere with the sticking of the label's adhesive, unless a special adhesive is used.

Terramycin in the powdered form is filled into glass vials by semi-automatic dry fillers. Rubber stoppers are applied by hand and the aluminum secondary closures are put on by a fully automatic machine. The vials then emerge from the sterile room on a conveyor and are ready for labeling and cartoning. If the vials are to be put into a combination package containing a diluent, the cartoning, except for the tucking operation, is done by hand. Vials of terramycin capsules are individually cartoned and this operation, accordingly, is completely automatic.

The vials of capsuled terramycin,

for example, are transported in paper-board trays to the production area, where they are labeled and cartoned on a line that has an exceptionally high output rate.

The first step in this operation is feeding a tray load of vials into a rotary unscrambler. A girl operator lifts a tray of vials from a stack of trays and breaks open one end of the tray, which is held in place with only a strip of gummed tape. The operator places the edge of the tray under the unloading plate of the unscrambler. The tray is then thrust forward, depositing the 100 to 300 vials—depending on their size—on the in-feed plate. Supporting arms that are underneath the plate serve as a guide for the tray of vials.

The unloading plate, rotating disk and special low guard rails of the unscrambler are polished stainless steel, because a smooth sliding surface is absolutely essential to the fast, non-tip handling of vials. Even the slightest rust spots on the metal might cause tipping.

When the in-feed plate has been loaded with a couple of trays of vials, the containers gently begin to ease out onto the rotating disk and are then regimented single file onto a conveyor for their trip to labeling and cartoning.

The conveyor carries the vials to a worm gear that automatically spaces the vials for labeling by a dry-process, thermoplastic labeler. The labeler picks up the labels by vacuum from a magazine and feeds them to a revolving drum which activates the adhesive on the labels to the desired temperature for application. The vials catch up one edge of the labels as they pass the rotating drum. Vial and label then pass through a compression belt. The reason for using thermoplastic labels is because of the high output rate possible with this process, thus permitting utilization of equally speedy equipment in other phases of the vial-handling and packaging operation.

The next step, in-process, is performed by girl operators who check for proper labeling. At the same time, random samples for quality control are removed from the line.

In the cartoning operation, the vials or capsules are turned from a vertical to a horizontal position. Insert literature is yoked over the cap and neck of the vial, and vial and insert are pushed into the carton by slow-

moving pistons. A coding attachment prints the lot number and expiration date on the carton, and the flaps are tucked in. The cartons finally proceed by conveyor to a specially designed accumulating table and are hand packed in shipping containers.

The packaging equipment used on the labeling and cartoning line was selected for two principal reasons—speed and flexibility. In regard to speed, machinery permitting very fast output was sought. In regard to flexibility, adjustments for changes in vial sizes or labels can be made in only five minutes in either the unscrambler or the labeler. Adjustments of the cartoner for size changes require but 25 minutes.

The emphasis on both speed and flexibility is dictated by the fact that many dosage forms, capsules, powders, tablets, etc., in various vial sizes call for continual production changes.

In-process statistical quality control is maintained throughout all operations and is maintained by a specially trained quality-control staff. Further guarantee of outgoing quality is assured through the use of the latest statistical lot-acceptance techniques.

A special printing department imprints information, such as license numbers for export, on cartons intended for foreign-market distribution.

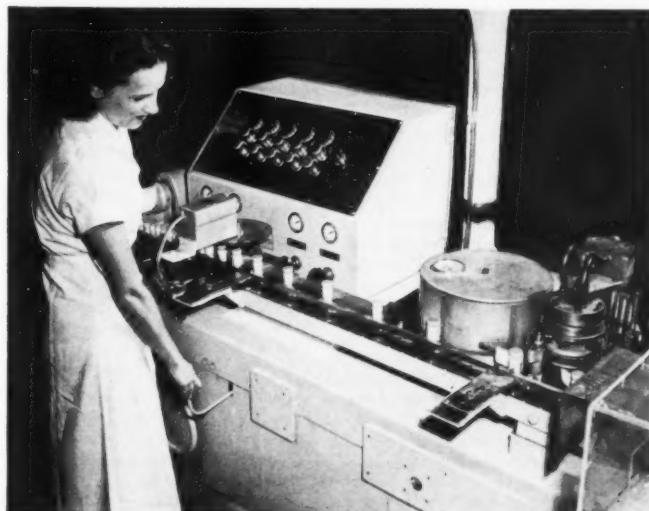
Pfizer's terramycin packaging operation takes on added interest because it marked the abrupt departure of the firm from its 100-year-old policy of exclusive bulk packaging and distribution. Today, terramycin packaged and marketed under the Pfizer brand name is available throughout the world as a tested and accepted agent in the treatment of 55 serious and prevalent infections. Special dosage forms of penicillin, streptomycin, bacitracin and polymyxin are also marketed.

Merchandising

Five years ago, a research program to develop new antibiotics was instituted. Two and a half years and 100,000 soil-samples later, terramycin had been discovered by a research team of scientists. In the following 12 months, Pfizer developed production facilities, packages and packaging lines, and had organized a new merchandising program and a sales force to introduce terramycin to the drug wholesalers, retail drug outlets, physicians and hospitals throughout the United States.

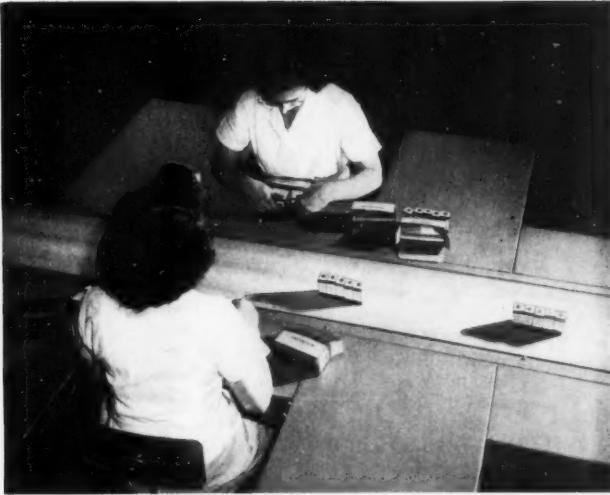
An idea of the immensity of the terramycin program and the dispatch with which it was carried out can be gained by comparing the project with penicillin, the pioneer antibiotic, which saw 10 years elapse between discovery and clinical trials, and

THERMOPLASTIC LABELER operates at high speed. Electric-eye control and worm-gear spacer synchronize the movement of the vials past rotating heating drum. The vials (right) catch one end of the heated label, which is then pressed tight against the glass by compression belt.





AUTOMATIC CARTONER feeds blanks from magazine, inserts vial and literature in carton, then code prints and closes carton.



SPECIAL PACKING TABLES fed by conveyor speed the packing of components in dealer put-ups by hand. Some 15 different types of packages are used for terramycin in powder, tablet, ointment and solution forms.

which required four years for the achieving of large-scale production.

As can readily be understood, the development of the terramycin packages alone involved many problems, since the product itself was not only new, but Pfizer, in turn, had never before engaged in unit packaging for the prescription trade. Among the packaging problems to be tackled were the selection of suitable packaging materials, determination of product form (liquid, powder, capsules, etc.), size of put-ups and selection and installation of effective packaging equipment.

In addition to these basic demands were many others of special significance in the rapidly expanding field of drug packaging*—product-package compatibility; Food & Drug Administration release of product and product literature; linguistic and lingual requirements for export market studies to determine anticipated demand and package testing to assure safety factors in regard to climatic extremes and rapid temperature shifts as well as the effect of high altitudes.

The story of how Pfizer developed a sales organization and acquired national distribution for its retail-packaged wonder drug is now a part of drug-merchandising history. Within a

year's time from the decision to sell direct to the trade, terramycin was being stocked in a wide variety of product and package forms in the majority of drug stores and hospitals in this country. Not only had time itself been outdistanced, but an extremely small sales staff had successfully breached a highly competitive field—one that was already serviced by two major competitors with a combined 1,300-man sales force and 137 years of retail-trade distribution experience.

During the campaign first deliveries followed FDA release with extreme rapidity. Meanwhile physicians, instead of being visited individually, were reached through group educational projects conducted at leading hospitals.

Pfizer has shown approximately a sixfold increase in sales during the last 10 years. It can be assumed that the firm's several new products have played an important part in this growth. Among the new products that helped double and then nearly triple sales in less than 10 years are penicillin, streptomycin, terramycin and crystalline vitamin A. Last year a new Pfizer plant in Groton, Conn., began production of stabilized crystalline vitamin A acetate and at full capacity this plant should be able to supply a large portion of total U. S. military

and civilian need for the vitamin. Pfizer sells this product only in bulk.

CREDITS: *Silicone fluid for producing drain-free coating on vials, Dow-Corning Corp., Midland, Mich. Vials and bottles, Kimble Glass Div., Owens-Illinois Glass Co., Toledo, Ohio, and T. C. Wheaton Co., 165 Broadway, New York 6, N. Y. Plastic closures and liners for bottles and polyethylene plugs for vials, Kimble Glass Div., Owens-Illinois. Rubber stoppers, The West Co., Phoenixville, Pa.; Tompkins Rubber Co., Conshohocken, Pa.; Plastics Assembled Products Co., 1149 Watson St., Baltimore, Md. Aluminum secondary closures, Aluminum Seal Co., Richmond, Ind., and The West Co. Folding cartons, Container Corp. of America, 38 S. Dearborn St., Chicago; Continental Folding Paper Box Co., Ridgefield, N. J., and E. J. Trum, Inc., 80 Richards St., Brooklyn 3, N. Y. Vial washers, Popper & Sons, Inc., 300 Fourth Ave., New York 10, N. Y. Semi-automatic dry fillers, Chase Equipment Corp., 47 E. 19th St., New York 3, N. Y., and ("Accofill" leased filler) Perry Metals Co., 1127 Atlantic Ave., Brooklyn. Seal capper, Aluminum Seal Co. Unscramblers, vial conveyors and accumulating tables, Island Equipment Corp., 27-01 Bridge Plaza, N., Long Island City, N. Y., and American Stage Equipment & Iron Works, Inc., 805 E. 134th St., New York. Thermoplastic labeler, New Jersey Machine Corp., Hoboken, N. J. Cartoning machine, F. B. Redington Co., 110 S. Sangamon St., Chicago 7, Ill.*

* See "Developing the Drug Package," MODERN PACKAGING, March, 1951, p. 69.

AMA

21st National PACKAGING CONFERENCE and Exposition

Again confounding predictions, the 1952 Packaging Show broke all records for attendance not only for Atlantic City, but for any hall, anywhere. When the 21st National Packaging Conference and Exposition closed its four-day run on April 4, an astonishing 21,856 badges had been issued, as against 16,200 at the same Boardwalk Convention Hall last year and an all-time high of 19,175 at Chicago in 1950.

Knowing that attendance at Atlantic City usually runs several thousand below that at any industrial city, the American Management Assn., sponsors, had predicted 17,000 at the most.

It was known before the show opened that more exhibitors would occupy more space than ever before, but again the final figures were surprising. There were 326 exhibitors, utilizing 103,000 sq. ft. of booth space—occupying for the first time the little-used lower level of the vast Convention Hall.

The growth of this annual conclave of the packaging world is shown in the following tabulation for the last six years:

Place	No. Exhibitors	No. Visitors
1947 Philadelphia	185	17,100
1948 Cleveland	178	13,606
1949 Atlantic City	200	9,227
1950 Chicago	240	19,175
1951 Atlantic City	264	16,213
1952 Atlantic City	326	21,856

Because of the distribution of exhibits on both levels of the hall, traffic moved swiftly and easily, and the size of the crowd was not apparent. Wide stairways strategically placed at each end of the Boardwalk level drew visitors to the lower exhibits and back again.

Both the Exposition and Conference reflected a happy situation in packaging at present, with most materials and equipment again in plentiful supply and packagers in the mood to buy. Exhibitors agreed that it was not only the largest, but one of the "buyingest" crowds in years. New developments in machinery and plastics again attracted much attention, but there were solid accomplishments to be found too in paper, inks, printing, glass and metals. Materials handling as applied to the packaging operation, demonstrated in the Exposition for the first time, drew many visitors.

Because the Atlantic City hall is generally considered the world's largest exposition area, there was some concern among exhibitors as to how future growth can be accommodated. However, Clapp & Poliak, the exposition managers, laid these fears at rest with figures showing that Chicago's Navy Pier—scene of the 1953 and 1955 shows—has a considerably greater area and that additional booths can be provided at Atlantic City when needed. A tentative layout for Navy Pier for 1953 provides 120,000 sq. ft. for booths.

During the show, Lloyd L. Triggs, advertising manager of Riegel Paper Corp., New York, was elected the new chairman of the Exhibitors Advisory Committee, succeeding Robert D. Handley, and it was confirmed that the 1953 show in Chicago would be held during the week of April 20. The exhibitors also approved longer hours for next year, with the Exposition opening each day at 10 a.m. instead of noon.

Well-organized Conference sessions during the first three

days of Packaging Week drew a registration of about 1,250, with 1,100 of these being on hand for the feature attraction—a half-day program and demonstration conducted by a half-dozen General Motors packaging executives. Additional hundreds of Exposition visitors filed through the Ballroom to see the extensive exhibit set up by the General Motors group. The merchandising session conducted by F. Richard Holtz of Eastman Kodak Co. on Tuesday afternoon also drew a large and interested attendance, despite the competition of the just-opened Exposition downstairs.

Following is a summary of discussions at the seven Conference sessions:

TUESDAY MORNING

Chairman, PAUL O. VOGT, Coordinator of Package Engineering and Development, General Electric Co., Schenectady, N. Y.; assisted by RICHARD F. NUGENT, Director of Purchases & Production, Ortho Pharmaceutical Corp., Raritan, N. J.

The Conference was opened, as usual, with a greeting from Lawrence A. Appley, President of the American Management Assn., who introduced Chairman Vogt, the AMA Vice President in charge of the Packaging Division. Mr. Vogt in turn introduced the morning's speakers.

What's Ahead for Packaging?—IRWIN D. WOLF, Vice President, Kaufmann Department Stores, Pittsburgh. As our 21st National Packaging Conference opens we observe all around us such handsome, such efficient, such ingenious, such serviceable packaging and packing—in commodities from pins and peas to tissues and tools—that one might be pardoned for concluding that about everything has already been done. Happily that is *not* the fact and a tour of this year's exhibits will no doubt satisfy any of us that both experienced designers and eager newcomers are steadily advancing the appearance, the selling effect, the construction, the production and all other aspects of packaging.

To say it another way, packaging has probably achieved all that could be expected of it—so far. But more is *about* to be asked of packaging (as well as many other businesses) because we are living in a fast-changing period that promises to lead into an even faster-changing era.

Residing in a small home or the average apartment, the modern family has the use of only a small kitchen. There is no storage space of any account for food or other staples and supplies must be bought accordingly. Among other things, products must be packaged for immediate and one-time use.

Then there is a kind of thinking that is the product of recent wars, atom bombs, jet planes and the like. It is difficult to define, but easy enough to recognize in various manifestations. To be specific, this generation and even more so the rising generation want work done at the touch of a button . . . they are intolerant of all but top performance.

TV opens a new world to exploitation by packaging. And packaging, in addition to its usual responsibilities in selling,

must take account of TV influence on staying-at-home-for-entertainment, which involves such adjustments as quick meal preparation in order to catch favorite programs.

In the field of *retail selling* I see directly ahead certain advances that have, in fact, already started.

The first trend is to *more positive identification*. For the designer, it poses the problem of working "from the product out"; of making the package picture the product instantly, though perhaps unconsciously. The need for such packaging is urgent.

I think *identification* should often be followed by *association*—the mental linking of one good product with another good product from the same maker. If this objective is achieved by skillful packaging—assuming all products so identified in a "family of packages" are quality-worthy in their respective classifications—then increased selling should result.

I also look forward to *more informative packaging*. You may think I am thinking of the label type of information and you are right; I am. But I propose going a little further—adding factual assurance (not mere claims) that the purchaser has made the best selection in its field; adding basic information for first-time purchasers; adding tips on use.

And, as a closing thought, plan your package for selling by self service or partial self service. Rising costs and narrowing margins of profit in retailing make self service, or some degree of it, a distinct possibility in many departments handling so-called staples.

Washington Looks at the Packaging Picture—MANLY FLEISCHMAN, Administrator, Defense Production Administration, Washington. We are approaching the end of the second year of the great American re-armament effort which follows the invasion of Korea. Behind us lie nearly two years of intense effort, some mistakes, but in summary very substantial progress towards our goal of national security. Ahead of us lie two or three years of what must be a most strenuous effort to turn a gradually increasing stream of military production into a mighty flow of guns and planes and tanks.

In the first year—from July, 1950, to July, 1951—the major attack was on the key problem which lies at the center of any mobilization program—the materials problem.

Aluminum production has already increased about 40% since Korea, steel is up about 8%. Just one of the expansion projects, the Nicaro project, recently re-activated in Cuba, will bring us an additional 2,400,000 lbs. of nickel per month in the years ahead. The Controlled Materials Plan is now working well and an allotment of controlled materials may fairly be said to have the status of a certified check in the vast majority of cases.

While I have no confidence in labels, I will risk characterizing the second year of the effort—from July, 1951, to July of this year—as the tooling-up period.

As we approach the third year of this great effort, it seems clear to me that the foundations have on the whole been well and truly laid. The new factories are now largely erected; the major items of equipment are in place or soon will be; the bugs are being eliminated from the designs; and the vast power of American industry can now be turned directly into the stream of military production.

The plan does not call for all-out production of munitions, since the objective is to avoid war through preparedness, and not to fight one. Nevertheless, the volume of military production planned for the next two years is impressive. The next two years seem to me to be at once the most critical and the most difficult of the whole period.

I believe it probable that current military production schedules, now for the first time firmly established, will be met during the balance of the program.

This will not be easily done, however. It will require a substantial part of our national resources, our materials, our equipment and our manpower. It will require the combined efforts of industry, labor and the Government.

Our national mobilization policy has made the military establishment the undisputed senior claimant against all the nation's resources and that policy will be continued. No needed material has ever been withheld from military production for the benefit of the civilian economy; and this policy, too, will continue unchanged.

We are anxious to relax controls on materials just as fast as it is safe to do so. We have been doing that all along. In the field with which you gentlemen are immediately concerned, we have revoked Glass Order M-51, removing all restrictions on the use of glass. We have also revoked the strapping order, M-59, and are studying the possibility of revoking or relaxing other M-orders controlling certain uses of steel and aluminum.

Certainly, we do not have much of a problem with glass, wood, cloth or paper. I understand that the shortage of paper for multiwall bags is disappearing. In plastics, there seems to be little difficulty except in those materials using polyethylene and the supply of that chemical is rapidly increasing. We have been able, as you know, to permit increasingly freer production of collapsible tubes, the main restriction being in tin.

In aluminum foil, which presents a problem, in part, because of the high-grade metal required in its manufacture, we have raised the level of the consumer-type foil to 30% of base period in the second quarter and hope that we will be able to provide further relief in subsequent quarters.

To some extent, expanding production of materials in the months ahead will be counterbalanced by expanding military needs. We must resist the temptation to throw off prematurely the restraints which we have imposed upon ourselves to assure the strengthening of our defenses and the preservation of peace.

TUESDAY AFTERNOON (Concurrent Session)

MERCHANDISING ASPECTS OF PACKAGING—Chairman, F. RICHARD HOLTZ, Manager, Package Design Service, Eastman Kodak Co., Rochester, N. Y.; assisted by F. W. NEWBURY, Packaging Coordinator, Pepperell Mfg. Co., Boston, Mass. The Trend to Packaging for Self Service—HOWARD F. LOCHRIE, Manager of Advertising and Sales Promotion, Birds Eye Div., General Foods Corp., New York. American manufacturers, all told, now turn out a yearly total of at least 235½ billion product packages, Mr. Lochrie said. It's known that the average housewife opens 575 cans a year in her kitchen and a yearly grand total of 1,696 packages of all kinds.

Packaging for self service dominates the planning of many, not all, merchandisers of modern food products. Many proprietors of long-established lines are reluctant to swing to new packages from the old, which have customer recognition and good will. However, we have now with us a generation that knows only by hearsay of the old days of personal retail selling.

Between 1940 and 1950, 12 million old-timers left the cares of this world behind. Meanwhile, 17 million women became brides and, therewith, disciples of self-service marketing. And, moreover, an entirely new element of 30 million babies came into the buying picture. These last millions will know only self service in its present and undreamed-of forms.

The new research projects by the Du Pont people show these facts: The average shopper passes through a self-service (pre-packaged) produce department in 24% less time than she takes for a service department. Yet she buys 16% more produce. An even later survey shows that she passes through a pre-packaged meat department in 41% less time. Yet she buys 9% more meat.

There's no gap between the advertisement that appears in color on the page of a magazine, for example, and the advertisement wrapper about a loaf of frozen string beans. The principles of packaging for the self-service market are not new.

While some specialists try to make advertising a science, others are trying to give it a soul, to keep it vibrant with life, page by page and package by package. This is but another way of saying that advertising *technique* is subordinate to the *idea* conveyed.

You've seen how TV provides an excellent spot to gain customer recognition of your product package. So when you go in for it, you have to think of how your package will look before the camera, as well as in the market.

Color TV is ahead and the packaging industry has to get set for it. This means that your selection of imprint colors will have to be more careful than ever.

It is in the self-service market, most likely, that your package first meets the customer face-to-face. There it must reflect, if not actually define, the value receivable by the purchaser.

Perhaps your package appears before the shopper as an old friend, just because the two have met through a press advertisement or a TV show. But don't forget that your package must have a friendliness all its own. If it's as friendly and sincere as a puppy in a pet-store window, you deserve success.

It may not be the rule, but it often seems so, that the more the variety in containers the more the sales. Take green peas, for example.

Not so long ago our grocery stores, year in and year out, sold only canned peas. Now they sell canned peas, glassed peas and frozen peas. Have the frozen peas and glassed peas cut into the sale of canned peas? No. All three are selling well. People are eating more peas out of containers rather than out of the pods.

The future of containers is just as open to advancement as any other division of the packaging industry. And that's saying a great deal, for the whole future of packaging is limited only by man's imaginations.

Here, a word about one family trend that the merchandisers of foods want to watch. American families are growing smaller. The most recent disclosure is that 59% (25 million) of our families now have three or less members. If that trend continues there may be a similar trend in packaging sizes.

The consumer doesn't think in terms of the manufacturer's packaging problems. Quite the contrary. Give a housewife a chance to express herself about packaging and you find she thinks in negative terms.

She points to inconveniences, poor closures, lack of instructions, poor color schemes and so on. It becomes clear that the manufacturer, has to think in terms of her problems; above all, instructions, recipes, time savers and even carriers.

"Convenience" is just about the most important watchword in packaging. Especially since all that it implies has to hold good for producer, distributor, retailer and consumer. Convenience may even be a consideration in re-use of the container.

Pre-Testing Package Design for Consumer Acceptance—ALBERT TWELTRIDGE, Manager of Product Research, Scott Paper Co., Chester, Pa. The consumer has been an active partner in the Scott Paper Co. for more than 25 years, Mr. Tweltridge said. During this time Scott has been in contact on an organized and continuous basis with the people who buy the firm's type of products, asking for their help and advice on the level of quality which is most satisfactory for their needs.

Early in 1950, after months of consumer testing of experimental papers, it was found possible to make a dramatic change in the quality of one brand. Preliminary discussions indicated it would be desirable to change the appearance of the package to promote the quality change effectively.

Some 35 new designs were drawn, ranging from variations of the old to new and radically different approaches. All were carefully studied by advertising, distribution, legal and production groups. Five designs were considered commercially practical, in harmony with other labels, suitable for mass displays and individual enough to secure brand recognition.

Two sets of samples were made: one in the color of the old design and another in a different shade. Two markets were selected for the consumer-reaction test. In one area the brand name was very well known and enjoyed a high degree of consumer acceptance. In the other market the brand name was relatively unknown.

A cross section of consumers was interviewed in their homes and shown a set of four rolls. One roll was the original design; the other three experimental. All were printed in the same color. Only the design was different. Each consumer was asked to make a first choice and a second choice on the basis of appearance. A second different but comparable group of consumers was shown another set of four rolls, one of which was the original design and the other three experimental. The two rolls receiving greatest preference in each of the two sets were then shown to a third different but comparable group of consumers to complete the elimination process. Consumer reaction to the color shades was measured by showing identical designs printed in two different shades.

In both cities and in all age and income groups two of the experimental designs had an unusually high consumer appeal. The new color shade was also a predominate favorite. One of the two high-ranking new designs was tested further.

The new design in the new color was now matched against the old design in the old color. This test, conducted in one of the original test cities and in a new test city with consumers at home, again showed the new design to be a heavy favorite.

Consumer tests of this type must be conducted with caution because of the tendency of many people to profess a much greater interest in the quality under the label rather than in the label itself and because of the influence of habit and brand familiarity on design choice.

The new design, in the new color, was now sales tested against the old design, in the old color, in large-volume super markets in two cities. Displays of the two designs, equal in size, were built side by side. Sales volume was checked weekly and interviewers were placed in the stores to talk to the people who bought any brand of the paper product. After a brand was selected these people were asked to comment on all labels in general and on the experimental design in particular.

Observation at point of sale indicated that the purchase of a particular brand of paper products is largely a matter of habit in the sense that most people knew what brand they wanted and where it was located. They merely made a quick grab for the product of their choice and continued on their way without paying any attention to the other brands available. The potential power of the new design was clearly marked, however, in the actions of those people who did notice that two different designs were on sale. Sales to these people were overwhelmingly in favor of the new design.

Management decided to adopt the new package design. The decision was based on facts. The new quality in the new dress has been on sale for more than a year now. The new package design, together with other promotional material, was able to get new users to try the product. The new quality was able to hold a large share of the people who tried it. Sales and distribution have shown a steady growth month after month. The success of the product is now an accomplished fact.

The Retailer Evaluates Your Package—NORMAN S. RABB, Vice President, Sales, Stop & Shop, Inc., Boston, Mass. Packaging people have helped make possible the modern super market as we know it today, Mr. Rabb said. Packaging and package design have become very important tools of management in the race for broader distribution through self-service retailing.

There are some very important reasons that explain the important part that packaging and package design have played in mass distribution. First, there seems to have been a tremendous growth in impulse buying in the relatively few years since 1940, due primarily to the considerable increase in the purchasing power of most of our population since that time. In a modern super market, the merchandise displayed in the store itself is often substituted for the traditional food shopping list. Under such conditions, packaging and package design exert important influence on purchases.

The effective package should:

1. Look something like what the customer expects it to look

like. For example, a beer bottle that is designed so that it looks like hair tonic or shampoo will not sell well.

2. A self-service package should appear as large as possible—within reason—to give the impression of maximum quantity for the money without, of course, being deceptive.

3. Transparent containers should not be printed over so large an area that it is hard to see the contents.

4. Make the package easy to read. This seems obvious, but many packages are being made today that are hard for the customer to read without taking them off the shelf for closer inspection.

5. Give your package an up-to-date look. It needn't have any ultra-modern sleek look, but it also need not look like a hold-over from the Gay Nineties—unless you are selling that vague thing called "atmosphere."

6. Use good pictures—or none at all. Poor photography and poor plate work pulls down the whole tone of a package. Obviously, you must buy packages with clean, clear printing, using bright, fresh-looking colors.

7. Make the package easy to open and easy to close. We all agree on this point when discussing it, but there are still many packages being made today that a customer has to fight her way into and then can't satisfactorily reclose to store what's left.

8. Build your package size to fit a wanted price range (except where important industry standards exist.) For example: If I were a candy manufacturer, I would want to make sure that my product could sell for 29 cents instead of 35 cents, even if it meant packaging 13 ounces instead of a full pound. There has been a marked trend in the canned-goods field from #2 size cans to the slightly smaller #303 can and from 11 oz. to 8 oz. cans for this very reason.

So well has the change been executed that it is frequently difficult to notice the difference in weight unless both old and new packages are side by side, even though the difference in contents may be as high as 25%.

9. Your package should be built to protect itself against soiling, contents loss, flavor loss, aroma loss or absorption, moisture loss or absorption and spoilage (during the selling period and a reasonable time in the customer's hands).

When we put a package on our shelving, that package must act as its own salesman. It must: first, attract the prospective customer; second, identify the product and the brand and, third, close the sale.

TUESDAY AFTERNOON (Concurrent Session)

IMPROVED PRODUCTION METHODS—Chairman, JOHN WARREN, *Packaging Consultant, American Home Products Corp., New York; assisted by JOHN J. CLAREY, Jr., Director of Products Planning, Bristol-Myers Co., New York.*

Setting Efficient Standards on Packaging Machinery (Part I)— FREDERICK W. HERNDON, *Assistant Production Manager, C. F. Mueller Co., Jersey City, N. J.* Industry sales of macaroni products, Mr. Herndon said, have doubled since 1937 (577,600,000 lbs. to 1,100,000,000 lbs. plus) and the former predominance of small businesses in the industry is slowly giving way to a group of about eight or 10 large-volume concerns, among the 200 or so macaroni manufacturers in the United States, who are willing and able to provide the major capital required to fit their operations to the changing pattern.

In our case, this has meant a complete turnover of equipment, complete re-arrangement of factory and a change and modernization of our concepts.

For example, we found that over a four-month period while operating one of our lines at its maximum speed of 102 cartons per minute, we averaged 1,327 cases per shift. A similar study with the equipment operating at 90 cartons per minute gave us an average output of 1,477 cases per shift, an increase of 11.3%. The lower speed was determined through studies at different operating levels below the maximum. As a result, we had a

theoretical standard of 102 packages per minute, but an actual operating standard of 90 packages per minute for the same unit and at the same time were able to reduce the maintenance approximately 25%.

The increase in our sales since 1945 on our short-cut items, encompassing the investigations and installations here discussed, has been on the order of 77%. At the same time, unit labor cost has been reduced 24.7% in spite of yearly wage increases over this period totaling \$51 per hour.

One of our installations consists of a completely new set-up to weigh and fill different widths of egg noodles in upright window cartons. This product has long been considered one of the most difficult to package economically due to the physical nature of the product and its non-free-flowing propensities. The best available equipment on the market is capable of weighing 32 packages per minute maximum. Due to the multiple number of these units which would be required to meet our schedule needs and the fact that we could save 75% of the labor required on these multiple units if we could develop a satisfactory single high-speed unit to provide equal output, we decided that the savings potential would justify a program aiming at a new design of weighing device which would meet our need and accurately weigh at approximately 60 packages per minute.

The resultant study of available equipment and consultation with machinery suppliers gave us only a faint glimmering of hope, since they unanimously refused to offer us any guarantee on weighing fine egg noodles (the toughest of the several varieties), although they did offer guarantees of a sort on the wide or slightly more free-flowing egg noodle. One manufacturer made quite a complete study in his laboratory and, together with experimental work we performed in our own plant, some ideas which were in the embryonic stages on our minds began to crystallize and, after much work and many false leads, we have come up with equipment, now patented, which will weigh fine egg noodles at 78 packages per minute and wide egg noodles at 90 packages per minute.

Setting Efficient Standards on Packaging Machinery (Part II)— VALENTINE C. BREMER, *Quality Control Manager, C. F. Mueller Co., Jersey City, N. J.* The Mueller company bases its control techniques for variable weights on variations for individual packages rather than for averages, Mr. Bremer said. In either case the technique is the same, though the numerical values of the control limits are different.

The first step, then, in a control program for variable weights is to determine conditions actually existing when filling a specific product on a specific machine or line. For this, we use two different forms, one for long-goods operations and one for short-goods operations. Of necessity, long-goods packing is a manual operation, since there are at present no satisfactory automatic packaging machines for these commodities.

When long-goods form was inaugurated a little over a year ago, any one packer showed more out-of-limit defects than the whole packing line now shows for a given shift.

For short-goods packaging, a second form is used. On this form, five consecutive packages are sampled from each pocket in numerical order, 30 samples being obtained each hour, a total of 1,440 per shift. Control limits are calculated for each pocket and for the scale as a unit (composite of six pockets) both on an individual package and an average weight basis.

In our program, incompletely sealed or open side-seams, missing cellophane windows, warped cartons, excessive board-weight variations are considered major defects. When bulged cartons or defective side-seams occur in a carton on the packaging line, the carton jams up in the forming unit and by the time the safety trip shuts off the machine, three additional cartons are ruined and machine shutdown time encountered. During a recent 30 minute run, 20% of defective cartons caused a 50% loss in machine operating time.

Consequently, we have placed a counter on the carton-forming machine. At the end of each shift, the carton input and the

output as reflected by the case tabulator are recorded on the packaging report. The type of major carton defect and the manufacturer's name are also included. In case of excessive defects, the data can be reported back to the supplier.

Most suppliers are willing to work with the purchaser regarding excessive defects, but there must be an interchange of factual data and specifications of a practical nature.

Setting efficiency standards for packaging or other machinery is usually assigned to one or more staff members. However, without active cooperation in the practical application of these standards by supervisory foremen, maintenance mechanics and the operators themselves, the best standards in the world aren't worth the paper they are written on. Consultation with them during preliminary phases and actual operation of the program and explanation of the whys and wherefores in simple language is very effective.

Maintaining Quality Output on the Production Line—C. L. RUMBERGER, Vice President in Charge of Research and Quality Control, H. J. Heinz Co., Pittsburgh. Mr. Rumberger said the following points should be considered in planning for and evaluating a quality program:

Quality can be achieved only when there is a desire for it among all employees and this desire cannot exist unless it originates with management.

There is a need for detailed specification for ingredients and packaging materials; these specifications to be used for both purchasing and receipt inspection of supplies.

There is a need for a "process sheet" or some other form of tabulated procedure for the guidance of factory management in the production line of operation.

Quality-check points must be established through the line operation in order to find product deviations and make corrections before poor-quality production results.

Standards for finished products must be available to be used as a guide in the evaluation of the goods to be sold.

Modern methods of statistical evaluation should be applied to established facts concerning materials, operations and finished products.

There are three items that go to make up the character of a business—quality, costs and people. A successful business will not stand for weakness in any one of them.

The quality manager must be a good salesman.

The most successful quality manager uses every employee as a quality representative. He can obtain especially strong aid from the supervisory help. In fact, when the quality manager succeeds in convincing a department foreman that he, the foreman, is responsible for the quality of the production of his own department, he has probably reached the apex of his profession.

The application of new methods for quality evaluation following World War II has resulted in improved production in many industries. This is sometimes termed "statistical quality control." It is described as a scientific approach to the problem of determining whether a given process or product falls within the standards and tolerances previously established. The food industry has probably made less progress in this approach than any of the mechanical and heavy industry operations. Food manufacturing has many problems that would not apply, for example, to the manufacture of screws and bolts.

It is an accepted fact that there is a logical approach to the evaluation of materials and processes as well as finished products, in the food industry, by the use of improved statistical methods, through samplings, process checking and tasting. An effort is being made to adapt these basic principles and I am sure that the results are going to be beneficial.

New Developments in Package Check-Weighing Equipment—ROGER L. MERRILL, Assistant Supervisor of Electrical Engineering Division, Battelle Memorial Institute, Columbus, Ohio. The question has often been asked, "Why can't filling machines be

made sufficiently accurate so that check weighing is unnecessary?" The answer is, of course, that they can be, provided the filling speed is sufficiently slow, Mr. Merrill said. As everyone knows, there is a direct relationship between the weight inaccuracy and speed of a given filling equipment. As the filling speed is increased, the weight accuracy is decreased.

Check weighing is actually one inspection of product quality. The information obtained is used for two major purposes: to protect customers and to control the production process. The most satisfactory check-weighing system for a given production line is a matter of economics and company policy. For any given minimum quality level, which is established by policy, there are definite relationships between production speed, product loss and inspection costs. The proper relationships between these factors must be established on the basis of minimum overall cost.

At the present time, one of the following check-weighing systems is used to control the production process: Spot check plus operator judgment; spot check plus statistical analysis; automatic check weigher plus operator judgment. The effectiveness of a spot-check system is dependent upon the quantity of weight information available, that is, the percentage of packages checked. Regardless of the percentage checked, statistical methods are much more effective than systems based on human judgment. They tend to eliminate errors due to the human factor and can be applied at very little increase in cost.

Check weighers are much more effective than any spot-check system since, effectively, much more weight information is available to the operator. In addition, automatic check weighers provide the 100% inspection for rejection of defectives.

Experimental systems are now being tested which combine the automatic check weigher with statistical methods. These include: automatic control-chart plotter and completely automatic statistical quality-control system. These devices offer great promise for reducing the cost of check weighing and for improving the over-all performance of the inspection system.

As packaging-line speeds are increased, the needs for adequate check-weighing systems and the requirements of those systems are multiplied. Manual spot checking is simply not compatible with packaging speeds of 200 packages per minute or more without excessive labor costs. Automatic check-weighing equipment will be imperative on such lines and higher-speed check-weighers must be developed.

Of equal importance in future check-weighing installations is the need for improved data-processing systems. Improved methods for processing large quantities of weight data are needed so that packaging-line operators and management can make necessary control decisions. Automatic statistical quality control promises to overcome these problems. These systems, however, must be further developed to make them simpler to operate and to reduce their cost.

WEDNESDAY MORNING

REDUCING PACKAGING COSTS—TWO COMPANY PROGRAMS—Chairman, EDGAR J. FORIO, Vice President, The Coca Cola Co., Atlanta, Ga.; assisted by F. W. LANGNER, Coordinator of Packaging Activities, Socony-Vacuum Oil Co., Inc., New York.

Getting Maximum Effectiveness from Packaging Machinery—EDWARD HAMM, Packaging Development, Sharp & Dohme, Inc., Philadelphia, Pa. (Mr. Hamm explained how Sharp & Dohme saved \$391,000 in 1950 and 1951 through standardization, mechanization and organization. A complete report of how this was done was carried in the article titled "The War On Costs" which appeared in the April, 1952, issue of MODERN PACKAGING, p. 81.)

Cost Savings through Package Standardization—J. F. APSEY, Jr., Advertising Manager, The Black & Decker Mfg. Co., Towson, Md. In 1949 it was evident that the packaging of Black &

Decker accessory items was inadequate and costly, Mr. Apsey said. Recognition of serious deficiencies in accessory packaging prompted management to appoint a packaging committee charged with the responsibility of correcting the defects and developing a type of package and a procedure which would achieve eight major objectives: improve the physical strength of the packages; improve and standardize the labeling of the products; develop a package design emphasizing brand identification; develop interchangeable packages; improve the visibility of trademarks; work out identifying color schemes; reduce the number of different packages required; reduce packaging-material storage space.

From the standpoint of protection, there were many opportunities for improvement. All possible types of packages were studied, samples made and tested. These varied from a simple reverse-tuck folding carton with an improved locking arrangement to the patented metal-edge type. All were discarded in favor of the type which we are now using—the tray-and-sleeve type—for reasons peculiar to our particular packaging problems. Our decision was based on the fact that a tray with double glued side walls provides corner strength and resistance to crushing and it has three distinct advantages. First, it is a folding carton delivered flat and requires no set-up machinery. Second, it presents a neat, unobstructed end for labeling. Third, it is a tray which can be easily procured from many sources. The glued sleeve, which completes the package, gives additional strength by providing a tension strap around the tray.

The most important and most spectacular objective, from a cost-reduction standpoint, was to reduce the number of different packages required to box our 1,500 different accessory items. The number of packages previously used for boxing our accessory line was 177, of different sizes and types. The purchase of so many different boxes in tremendously varying quantities of each size made each box cost us more than it should.

In the group in which we have achieved the greatest consolidation, and on some of the most popular and highest volume accessories, we replaced 55 different boxes, which were used to package 599 different items, with just four of the new-type packages. The total yearly requirement for this entire group is 591,000 boxes and the greatest single consolidation is in the smallest box which replaces eight others, packing 219 items with total requirements of 340,000 per year.

The most complicated group we had to work with consisted of such widely varied accessories as heavy forged tools, light but bulky tubes, and high-priced, finely finished precision pilots. Furthermore, such items as pilots and guide cleaners were formerly packed in boxes of such small cross-section that practical labeling area was impossible. It was determined to increase deliberately the size of package for these items to give adequate labeling area, to provide a package that stacked well and to dress up these costly precision pilots in a box that reflected their true value and fine workmanship. In this group there are 411 different items, previously using 24 different boxes, with annual requirements of 135,000. These were consolidated into five packages of the new type.

The final objective was to reduce the storage space required to carry our inventory of accessory packaging material and to avoid an increase in the space necessary to stock finished accessories, both in our own warehouse and in distributors' stocks. Through the adoption of the collapsible tray-and-sleeve package, we have eliminated all set-up boxes and have achieved a space reduction of 15% on a total annual requirement of more than 80,000 cu. ft. previously required to stock accessories.

Based on an actual comparison of purchased price for any individual package, it would be difficult to show an appreciable reduction in cost by the adoption of our new packaging program. In a few instances the new packages are slightly more expensive than those previously used, but our packaging committee and, more importantly, our company's management are thoroughly convinced that on an over-all basis we have achieved definite savings in other ways.

WEDNESDAY AFTERNOON

THE GENERAL MOTORS PACKAGING PROGRAM—A CASE STUDY—*Chairman, Ralph A. O'Reilly, Jr., Packaging Engineer, Service Section, General Motors Corp., Detroit, Mich.; assisted by W. R. Shores, Superintendent, Carton Division, A C Spark Plug Div., General Motors Corp., Flint, Mich.*

Introductory Remarks—*M. E. St. Aubin, Director of Service Section, General Motors Corp., Detroit.* General Motors plants received 42,600,000,000 lbs. of material last year, Mr. St. Aubin said. Throughout the manufacturing and packaging process this material was handled 30 to 50 times before it was shipped. Labor costs for materials handling is equivalent to 13% of the total net productive labor. In 1951 the firm used \$42,000,000 worth of packaging materials.

GM packaging procedures gradually evolved over a period of years. Military packaging demanded a more exacting and expansive operation, and it was realized then that savings might be made by extending the new concept into peacetime operations. With soaring labor and material costs in recent years, the activity has been constantly accelerated. So has the materials-handling program.

General Motors consists of 35 operating divisions, manufacturing cars, trucks, Diesel locomotives, household appliances, aircraft engines and a wide variety of automotive parts and accessories. These operations are located in 112 plants throughout the United States. The divisions of General Motors are under decentralized management, each one controlling its own operations and procedure. Competition between these divisions is just as evident in the packaging and materials-handling field as it is in the sales field.

General Motors supplies more than 225,000 different automotive service parts through 87 warehouses. These must be packaged and distributed through the warehouses in such a manner that they are available and in good condition whenever and wherever they may be needed.

Background and Highlights of General Motors Program—*Ralph A. O'Reilly, Jr., Packaging Engineer, Service Section, General Motors Corp., Detroit.* Mr. O'Reilly said General Motors relies on three company-wide technical committees, operating under completely decentralized control, to provide an effective interchange of ideas and know-how in this field. These committees are preservation packing, service-parts packaging and materials handling.

General Motors seek three characteristics in its containers: product protection, handling convenience and merchandising.

Product protection is the first obvious consideration, because of cost of parts and possible disruption of assembly-line schedules or loss of good will of customers if parts are damaged.

Handling convenience in packages is measured in terms of time and space saved for dealers and customers. It cuts handling cost and means better storage and housekeeping and less human fatigue.

Merchandising plays a definite role in GM packaging because the competitive field is shared by 850 other manufacturers of automotive service parts. In competing for this business the company wants its packages to reflect the workmanship and quality of the parts.

GM depends heavily on its packaging suppliers for ideas on more efficient material utilization. Space utilization has been improved greatly through better packaging.

The ratio between tare weight and net weight is the yardstick of GM's progress in weight reduction. The packaging methods of 20 years ago, if used on the present volume of materials, would raise GM's freight bill many millions.

Automotive Package Engineering Procedure—*D. S. Millman, Supervisor, Packaging and Research, General Motors Corp., Flint, Mich.* Mr. Millman pointed out that the parts and acces-

series merchandising department sets the general policy and scope of Chevrolet's service-parts packaging. The parts material distribution department, through the packaging and research department, interprets the policy and is responsible for the selection of parts to be packaged or identified, determination and assignment of adequate specifications, and correlating packaging instructions to all packaging facilities.

Packaging and research is divided into three sections: research, procurement of unitizing materials, and coordination of packaging requirements in Chevrolet and with its unitizing suppliers. A "Packaging Research Record" is developed for each part researched. For a specific part, a type of container is tentatively selected. The method of loading determines the sequence of dimensions and type of closure so that the container *must* be set up, loaded and closed on the conveyor lines by the fastest and least fatiguing motions by the unitizer. A sample container is made according to the specification and the part is checked for fit and correct method of loading. The material cost per piece is estimated from present costs of similar containers. The work is given to the time study department for assignment of estimated standard hours per piece. Finally, a Parts Packaging Authorization form listing the part number and name, type of container and other information is approved by the manager of parts distribution.

Citing examples of the usage of unitizing materials at Chevrolet Manufacturing, Flint, Mr. Millman said 145,195 complete packages were put up by female employees one day last January. In addition, 127,536 containers were prepared, including printing, for the next day's business, and 14,255 complete packages were put up by male employees. In all of January, 2,193,117 complete packages were turned out by female employees and 1,913,108 containers were prepared, including printing, and 228,052 complete packages were produced by male employees.

Pioneering in Corrosive Prevention—R. C. LAMBRECHT, Manager, Parts Warehousing, Electro-Motive Div., General Motors Corp., La Grange, Ill. Mr. Lambrecht said Electro-Motive has used vapor-corrosion inhibitors for the past three years in 98% of all preservation, for every item that goes into a closed wooden box or carton, for both domestic and export shipments. Preservation is important to Electro-Motive, maker of Diesel-electric locomotives, because of the size and value of shipments such as a 17-ft. 3,500-lb. crankshaft.

Vapor which is heavier than air will travel and protect for a distance of 12 in. In a carton 24 in. long, there should be a piece of paper in each end, plus an insurance piece at or around the middle of the item.

Inhibitors save time and promote safety. Electro-Motive's customers, the railroads, reported that it took 45 minutes to an hour to clean a cylinder-head assembly protected by a rust preventive and wax paper. Now, with vapor-corrosion inhibitors, they merely blow any dust off the assembly with an air hose and it is ready for final assembly. The inhibitors eliminate the necessity for wash tanks, oil tanks, etc., in the producer's plant or that of customers, thus increasing the safety factor.

The firm formerly shipped injectors in a \$4 metal container. They were oil coated, which did not entirely prevent rust. With vapor-corrosion inhibitors, they are now shipped in a 29-cent carton. There has been no failure in three years. On just two high-volume assemblies, \$100,000 a year have been saved through the use of fibre drums which could not have been used with oil preservatives.

Electro-Motive is experimenting with the use of the chemical in crystal form and it is believed this will prove satisfactory for the internal protection of engines. This particular operation has been done by one of the leading aircraft companies for two years and eventually this application will become very widely used in many packaging operations. In other words, a metered air gun will spray a given quantity of crystals into a package just previous to closing the cover. This will be all the rust protection necessary.

General Motors Contribution to Military Packaging—E. H. VAN WAGNEN, Packaging Engineer, General Motors Overseas Operations, General Motors Corp., Detroit. Mr. Van Wagnen traced the development of new water-, vapor- and greaseproof barrier materials and new cleaning methods during World War II and cited JAN-P-116 as the present-day monument to this work. He pointed to confusion among the military and in industry early in the war over the proper method of processing approximately 150,000 various parts. One of the GM divisions suggested processing parts by classification groups. This idea was adopted by the Government. The Ordnance Corps has now expanded the number of groups to more than 1,100.

The division that organized this classification now handles its own packaging specifications by part numbers. In other words, there is a packaging specification for each part number. This system has also been adopted by Ordnance and they are already well on their way towards their goal of individual packaging specifications for 60,000 tank and automotive parts by July.

Remarkable savings in shipping space were effected by the Boxing Clinic, established at the request of the Army in the spring of 1942. For example, one standard single truck pack of 719 cu. ft. could be packed as twin units of 261 cu. ft. with a saving of 64%. Through September, 1942, the clinic saved 28,000,000 cu. ft. or the equivalent of about 103 shiploads, and also saved about 60,000,000 bd. ft. of lumber.

About two years ago, when one of GM's divisions again was asked to build tanks for the Government, a Tank Preservation Committee was formed. This committee produced a procedure for the preparation for shipment of the tank involved. Perhaps, however, its most valuable contribution was that it did such a good job in presenting the problem to the design engineers that the final design eliminated many of the common problems in tank preservation. An example of this is the elimination for sealing hatches, engine compartments, turret to hull, gun tube to mount, and gun mount to turret.

Semi-Automatic Packaging for Low Volume Operations—J. S. SAYLOR, Packaging Engineer, Buick Motor Div., General Motors Corp., Flint, Mich. Buick, Mr. Saylor said, lists some 22,000 items in service-parts operations and approximately 12,000 of these are packaged. Material is received in quantities ranging from 25 or less pieces as in the case of cylinder blocks to 25,000 pieces when the item is bolts or such.

Since Buick cannot use automatic packaging equipment because of volume limitations and cannot use completely manual operations because of manpower and cost limitations, the company must compromise on what it calls "semi-automatic" methods. This means a combination of the two. Normal packaging operations consist of opening, loading and closing. Additional operations may involve wrapping and printing. If Buick can economically mechanize one or more of these operations, it can increase output and decrease the amount of manpower required.

Whenever an attempt is made to set up any semi-automatic packaging involving low volume, one problem always arises, that of set-up time, or the time required to change from one size container to another. Almost all packaging machinery requires some adjustments to change from one size to another. However, if the cost of the change-over time overrides the saving in unit cost due to mechanization, the program is defeated. Also, it must be realized that production, as expressed in pieces per hour, is dependent on more than machine speed. Certain limitations are imposed by the speed of the hand operations used in conjunction with the automatic part of the operation, whether this be carton opening, loading, closing or take-away. Careful consideration must be given when setting up a sequence of operations, as to which one, or more, of the phases of the complete packaging operation should be automatic.

Very often automatic operations require change in container designs that may reflect increased cost in the container and this must be offset by labor saving due to increased production.

It is necessary that each piece of material be studied to de-

termine the break-even point; that is, when the use of either the hand operation or semi-automatic operation is more economical. The *only* way that this can be accomplished is by time study and cost study of both methods.

Developing the Machine for Specific Job—J. W. PETER, *Traffic Manager, Delco-Remy Div., General Motors Corp., Anderson, Ind.* Mr. Peters said Delco-Remy formerly packaged some 12,000 different pieces of automotive electrical equipment weighing from less than 1 oz. to 8 lbs. by means of conveyor-belt assembly lines.

Engineers studied the feasibility of a machine. The nature of the operations indicated that some sort of indexing machine, provided with nests and a seaming attachment for a certain basic size, might be used.

The machine that evolved is of the straight line "race track" type. The basic unit is a rectangular machine base and drive mechanism developed at Delco-Remy and used for several years on special-purpose production applications. It is upon this base that special stations and smaller machine components peculiar to a specific operation are mounted.

For packaging service parts, engineers mounted a printing press and drier, a set of scales for automatically weighing the filled cans, an ejector for overweight or underweight cans and finally an automatic lidding attachment. An automatic feeder for screws was also provided where the volume was sufficient to justify its use on any particular machine. All service parts, including low run screws, are placed in the cans by hand.

These packaging machines have 65 work nests which index around the base top. The nests carry cans of a particular size, but simple adjustments permit running different heights of cans ranging from $1\frac{1}{2}$ to 8 in. It takes only a few minutes to change from one height to another. This is accomplished by cranking the ladder and printing press up or down, adjusting the scales for the new weight and inserting a new plate in the press.

The basic principle of this type of machine is that during each cycle, a minor fraction of the cycle time is used to advance the nests, while the balance of the time is utilized to perform some packaging operation which may be either manual or automatic.

Advantages other than labor savings are reduction of operator fatigue, reduction of human errors, less floor space, fewer can sizes, fewer master-carton sizes and better housekeeping.

Unitizing of Materials for Mass Production Handling—R. W. CHALMERS, *Senior Materials Handling Engineer, Chevrolet Motor Div., General Motors Corp., Detroit.* Mr. Chalmers said the concept of efficient materials handling should begin with the manner in which raw materials are brought into plants and should end only after finished products are on their way to customers.

Don't sell materials management short. If you do, you are slamming the door on the greatest potential for profit left in the business.

In a few short years, recognition of the science of materials handling has ascended at an ever accelerating rate. Today, those who grew up with it know its possibilities—and its perils. People with this knowledge are all too few in number. It's difficult, if not impossible, to find qualified materials-handling people. Therefore, train your people accordingly and make their jobs attractive.

General Motors reviews continuously and studies intensively all matters affecting the transfer of materials and products to, through and from the manufacturing and assembly units. This policy is directly responsible for increased productivity, high quality and major reductions in costs. No new or unknown mechanical device not available to your industry is responsible for this increase in manufacturing efficiency. This efficiency comes mainly from an extensive and intensive application of known methods and equipment, spurred on by the knowledge that materials management is the last frontier for cost reduction.

THURSDAY MORNING (Concurrent Session)

COST DATA AND PACKAGE HANDLING PRACTICES—Chairman, WILLIAM L. ROMNEY, *Technical Director of Packaging, The Procter & Gamble Co., Cincinnati; assisted by JACK L. WADE, Quality Control & Packaging Research, Sears, Roebuck & Co., Chicago.*

Improvements in Car-Loading Techniques—L. F. DELVENTHAL, Jr., *Transportation Inspector, Western Pacific Railroad Co., San Francisco.* Close association with carloading and material-handling problems over a period of years has made me aware of the scientific approaches being made by industry. Through your efforts and cooperation, packaging designs have been developed which are structurally far in excess of requirements actually necessary to protect the contents carried. If railroad research on boxcar design were consistent with the improvements and progress which industry has made in other phases of packaging, we are quite certain that the cost of your packages would be substantially less.

To advance the theory that the mobile package—the boxcar—requires features to afford more protection to its contents, the Western Pacific has equipped 20 new all-steel boxcars with compartmentizers. These are two pairs of steel bulkhead gates suspended from the ceiling of the car, which can be locked to divide the load into three compartments at any desired locations within the car. By comparison with a commercial package, the compartmentizer functions similarly to a divider within a carton. In addition to its damage-prevention characteristics, the compartmentizer affords saving in labor and material so often necessary for blocking and bracing.

We are also seeking to improve the riding qualities and dissipate the vertical and longitudinal shocks that occur during road movement. We have a number of cars equipped with Chrysler trucks which incorporate stabilizing spring suspension.

The most severe element of force that the mobile package is subjected to is the end-to-end impacts when switching cars; in the future, we hope to have in service test cars employing an improved cushioned underframe.

One of the troublesome conditions in many boxcars is the roughness of wood floors, causing undue abrasion of packages. In 1940 the Western Pacific installed the first Plastinail floor in one of its boxcars. Plastinail is a cement-like substance, which is applied over old worn-out floors and which dries to a hard finish in a very short time. The outstanding feature of this new floor is that it is entirely nailable; will not absorb water and in the process of wearing it retains its smoothness. Nailable steel flooring has also been highly successful.

The Western Pacific has been exposed to some of the problems and developments in the packaging field. The use of fibre and steel containers to replace the old wood barrel is making rapid strides. Liquids and powders which have chemical reaction to fibre and steel are now being successfully packaged in fibre containers with Pliofilm, or some other type of plastic liner. On the West Coast we have made a number of test loads and have found that this improved package is far superior to the old pine or oak barrel.

We all know that the fibreboard container is perhaps the most economical package available today and in this respect I am led to believe that the *application* can go further and the package can be designed using fibreboard which will be suitable for commodities of substantially greater weights.

We have only scratched the surface with respect to improving carloading methods, packaging and especially freight-car equipment. The Western Pacific for one intends to continue research efforts in this field.

Materials Handling and the Use of the Pallet as a Package—HARLAND R. BLACK, *Manager of Materials Handling, National Biscuit Co., New York.* Using the pallet as a carrying medium, many small bundles may be picked up and transported in one

operation with powered materials-handling equipment. This is the unit-load principle.

It is logical to assume that the commodity must be secured to the pallet or skid with steel strapping, or by other means, in order to insure safe arrival at destination. Such a unit load may then be considered as a *pallet package*, according to our interpretation of the subject.

Some of the advantages to be gained through use of the pallet package and materials-handling equipment are as follows:

Reduced product damage because of less man-handlings of individual packages.

Promotion of cleanliness and good housekeeping.

Improved morale of the employees as a result of having decreased the manual energy required to perform their work.

Lower packaging costs resulting from a decrease in the number of smaller units to be packaged.

Reduced inventory-taking time and cost by use of uniform loads.

Reduced handling costs because less time is consumed when moving larger units of material at one time by mechanical equipment.

Increased capacity of storage areas, due to high tiering.

Quick and easy transferral of palletized material from one warehouse to another, or between locations within a warehouse.

More efficient utilization of shipping and receiving docks due to decreased time for loading and unloading.

In some specific instances, as with the automatic carton-forming machines used in NABISCO bakeries, greater machine efficiency is obtained as a result of less damaged material.

National Biscuit Co. operates two carton plants (at Marseilles, Ill., and Beacon, N. Y.), producing unfolded, die-cut carton blanks for distribution to the company's various cracker bakeries.

It was evident that the cost of operating any new system would have to be kept at an absolute minimum if its success was to be assured. This was due largely to the low cost of packaging small bundles of carton blanks and the fact that little or no expense was being incurred for car bracing under the method we proposed to replace. Also, an important decision had to be reached regarding the type of pallet to be adopted—whether it should be of an expendable or returnable type.

Today, about 70% of the production of the carton plant at Marseilles is being shipped on steel-strapped, single-decked wood pallets to our various bakeries. Truck shipments handle a portion of the output, but by far the greatest percentage of the shipments is in railroad cars. As a result of this new method, a whole series of bundling operations has been discarded for most work and, also, bundle-by-bundle manual handling has largely been eliminated.

We soon discovered that carton blanks could not overhang the pallets by so much as a fraction of an inch without being damaged. Consequently, 24 different sizes of pallets are being used and they accommodate 49 different sizes of carton blanks and other packaged items.

Although many expendable pallets were tried and tested, no suitable one was found for this application. Furthermore, we discovered that the cost of a one-trip pallet would exceed the cost per trip of a returnable pallet plus the round-trip freight expense, based on a life expectancy of five trips. Therefore, it was decided to design a special returnable pallet and top brace for the purpose.

Railroad-car or truck loading is quickly and easily accomplished by means of motorized pallet trucks. Upon receipt of a shipment at a bakery, the palletized packages are removed from the truck or railroad car by the same type of equipment. Specially designed magnesium dockboards are used to bridge the gaps between motor truck and boxcar floors, and to compensate for height differentials in the docks and the vehicle.

Although the art of proper packaging is entirely distinct from materials handling, it has, nevertheless, in recent years become closely allied with it. In our company, the Materials Handling Division works very closely with the packaging divisions of

our production and purchasing departments in a constant effort to lower costs through adoption of better methods.

A Practical Approach to Determining Packaging Costs—R. H. BUTLER, Container Manager, Merck & Co., Rahway, N. J. We believe the practical approach to determining packaging costs is *interpretation of cost data to fit what one wants to know in a particular instance*. It is not intended to discuss here a historical recording of what happened during the last cost period, but *why it happened* and what costs *other than those normally recognized as direct packaging costs* have nevertheless been affected by methods of packaging and package design.

Most cost-recording systems analyze in detail only those elements directly attributable to packaging, such as direct materials, direct labor, packaging supervision and overhead such as storage and handling of package components up to their assembly.

Not included in the direct analysis of the costs are elements affected by packaging, but usually buried in selling expense or administrative overhead.

The packaging cost analyst serves two functions very important to package development:

(1) He is the trigger mechanism which causes the package design organization to act on improvement of packages already in the line. By observation of gross and net margins, as affected by competitive pricing and broken down by product, he gives warning when it is time for specific items to be reviewed.

(2) The cost analyst is the measure of the package designer's performance. While the accounting system may not classify, as packaging costs, the far-reaching effects of package design on selling expense and administrative overhead, no one is more conscious of this than is he. By his technique of comparison before and after, he notices trends or changes.

There are, of course, other important needs for packaging costs. Obviously they are necessary to the establishment of sales price and to determining inventory value or policy. But the greatest contribution to packaging cost control is team work between the cost analyst and the package designer.

Certain charges are involved which, while variable, are not variable in proportion to the size of production runs. They involve cost of production-planning functions, such as sales forecasting, entries and deductions from perpetual inventory, filling out of manufacturing orders, issuance and filling of requisitions. They require inspection or control testing of the output, etc. Such activities are costed under various names, but for want of a better term, we will call their accumulation "put-up charge."

How does packaging affect put-up charges? Assuming a stable volume of loose or bulk product, the number of package sizes determines the number of packaging production runs each requiring a put-up charge. Deletions, resulting in a smaller number of sizes, reduces the amount of put-up charges and spreads those remaining over a larger number of pieces. Buying larger numbers of fewer component sizes reduces purchasing activity and at the same time increases the possibility of taking advantage of price breaks for quantity.

Why then don't we all reduce our lines to just one size of each product? And which size will we keep? Here is where your accountant-analyst advises the package designer and engineer. He examines the volume and profit picture for each size and his reports thereon contribute greatly to decisions on what to keep, what to delete.

The practical approach to packaging costs requires the following realizations:

(1) That packaging costs are not what they seem in the direct charges; that their tentacles and effect on profit reach into all distributed expenses.

(2) That the accounting system, method or arithmetic should not be satisfied with merely accounting where the dollar goes, but more important is the knowledge of why it goes and what we receive for it.

(3) That it is not sufficient for the cost analyst to be a good

accountant—he must have a probing curiosity and must trigger action by others.

(4) That to do so intelligently and be well received by those in other branches of the business, he must not be dogmatic.

(5) That to understand this story and evaluate its worth, he must know the business and be sympathetic to its technical problems.

(6) That in hiring or transferring accountants to cost work, they should be given several weeks' indoctrination training in each operating department whose expenses they will be required to analyze.

THURSDAY MORNING (Concurrent Session)

BROADENING USES OF MULTIWALL PAPER SHIPPING SACKS—Chairman, FRANK POCTA, Executive Secretary, Paper Shipping Sack Mfrs. Assn., New York; assisted by JOSEPH SCHIFFERT, National Sugar Refining Co., Long Island City, N. Y. In 1934 American industry demanded about 250 million multiwall sacks for the packaging and shipment of considerably less than 100 products, Mr. Pocta said. In 1951 American industries indicated their confidence in multiwalls by demanding more than 2 billion, 500 million multiwall sacks for the packaging of approximately 400 different products in sacks with capacities ranging from 25 lbs. upwards to 100 lbs. This represents an increase in demand of more than 800% since 1934. Multiwall packaging of food and agricultural products takes the lead, with chemicals and building materials following close second and third, with minerals fourth.

Cement and Other Rock Products—L. O. ROBINSON, Retired Sack & Claim Supervisor, Universal Atlas Cement Co., New York. Bag manufacturers now tell us that the present four-ply bags should be discontinued and three-ply bags of the same basis weight should be adopted instead, Mr. Robinson told the conferees.

This change has been suggested in order to get away from using 40 lb. paper, there being greater uniformity in papers of 50 lb. basis weight and up. Laboratory tests confirm this, but after all the real test is use in the field, and when our firm tried them out there didn't seem to be enough difference in breakage in packing and in number of complaints from customers to warrant a change at this time.

With all the new devices coming on the market, I should not be at all surprised to see a very radical change take place in the paper package for cement and other rock products. Knowing some of the problems that are encountered in packing paper bags through a small valve, I believe that eventually a machine will be perfected that will preweigh the product, place it in a paper bag of open-end construction, sew the open end together and deliver the package to the conveyor for loading into the car. One man could feed the empty bags into the machine, the weighing of material, filling of package and closing to be automatic, the package would not be handled again until it arrived in the railroad car ready for stacking.

Chemicals—RICHARD W. LAHEY, Manager and Materials Handling, American Cyanamid Co., New York. Multiwall paper shipping sacks are actually tailor made to meet the requirements of a particular product. Many special containers have been developed to meet extraordinary requirements. A few of these are: (1) a bag to carry hard, lumpy material such as lump alum; (2) special containers with a coating on the inner ply have been used for products which are liquid when packed and solidify on cooling; (3) bags having creped outer plies have been popular where special non-slip properties are needed for stacking; (4) a polyethylene coating on kraft paper has provided more protection against the transmission of water vapor than can be obtained from two asphalt-laminated plies; (5) molding powders in delicate colors must be protected against any contamination from dirt, paper shreds, fibres from thread, etc.

added protection has been obtained by heat sealing the sleeve valve and using an overslip over the regular container; (6) during World War II an outdoor storage container was developed.

Transportation—LAURENCE W. NORTH, Member, Official Classification Committee, Eastern Railroads, New York. A year ago the Freight Claim Division of the Assn. of American Railroads informed the Classification Committees that claims paid on products such as sugar, flour, rice, fertilizer and the like were assuming large proportions and that these commodities were largely shipped in paper bags. It was suggested that consideration be given to the establishment of some performance standards that would improve the quality of paper shipping bags.

A conference was held, attended by representatives of the paper bag industry, the Freight Claim Division, the Classification Committees and representatives of several large shippers of commodities in paper bags.

The most important result of the conference was the appointment of a joint Classification and Paper Shipping Sack Industry Committee, under the Chairmanship of J. A. Quinlan, vice president of the St. Regis Paper Co., whose function was the study and probable revision of railroad regulations.

At the first meeting of this group, the Mullen-test requirement for paper bags was considered at length. The outcome of this discussion was that, effective Jan. 16 of this year, the Mullen-test requirements were eliminated on paper shipping bags made of plain paper of 40-, 50-, 60-, and 70-lb. basis weights and other controls were substituted in lieu thereof, i.e., tearing strength, tensile and minimum stretch.

Many large shippers of commodities in paper bags set their standards beyond those now specified in the Classification as minimum. The Classification Committees are convinced that the present specifications for shipping bags should more nearly reflect the standards followed in the trade. Future meetings of the Joint Classification and Paper Shipping Sack Industry Committee will study this question, as well as other related questions, including the practicability of establishing some performance standards to be included in Rule 40.

Feeds and Other Agricultural Commodities—E. F. DICKEY, Vice President and General Manager, Honeggers & Co., Inc., Fairbury, Ill. In the feed business, packaging must first be acceptable to the customer, but it must also reflect economy, protection of product, ease of handling if we are to live with our production people, satisfy our dealers and please our farm customers, and it must provide a minimum of trouble from many sources, Mr. Dickey said.

In this connection the 50-lb. bag has reduced our packaging cost by 50%. It will not soil, is moisture- and rodent-resistant, and breakage in shipment due to car humping and rough treatment by the railroad has been reduced to a minimum.

This type paper container, because of its excellent stacking qualities, lends itself exceedingly well to palletized warehousing which we use exclusively in our mill. It has greatly increased efficiency of handling in our plant, with car and truck loading quickly and efficiently handled by the movement of ton lots of neatly stacked multiwall paper bags by use of a tow truck. Because of this method of handling, we have been able to persuade our dealers to discontinue piece-meal ordering of less than ton lots. We know that this has greatly increased our speed in handling and we believe has also stepped up our sales volume.

The multiwall paper bag is a one-trip container which because of its low cost can be destroyed after it has served the purpose for which it was intended. However, through new roughage-type feeding program which was developed at Purdue University and commercially produced by us for ruminant-type animals, the feeding of the sacks to the cattle just as we now do corn cobs and other waste material, may now be possible. We are working on this problem and hope to soon announce this new "ice cream cone" idea where the container is fed right along with the feed contained.

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Films for lemons

A REPORT ON THE RELATIVE KEEPING QUALITIES OF THE FRUIT

WRAPPED IN VARIOUS PERFORATED AND NON-PERFORATED FILMS.

By Howard W. Hruschka* and J. Kaufman†

The merchandising of lemons in consumer-sized packages has been adopted by many of the chain food stores in various parts of the country. In some stores the proportion of pre-packaged to bulk lemons sold is small, but in one New York City chain about 75% of all lemons sold are put up in film-wrapped trays. One wholesale grocery supply company uses the lemon-packaging line as a stopgap between times in their tomato-packaging operation when tomatoes are not available.

Since a variety of films and degrees of ventilation (i.e., the number of perforations per package) are used, the need was felt for some research on the effect of these practices on the keeping quality of the lemon fruit. To meet this need, the U.S. Department of Agriculture, Bureau of Plant Industry, Soils & Agricultural Engineering, conducted the studies reported here.¹

Tests 1 and 2

Test 1 was begun Feb. 20, 1947, and Test 2 on March 27, 1947. The two tests were alike in every respect

so that they are discussed together. Ventura County, Calif., lemons of 360 size were used. They were packaged in bags made of the following materials: (1) moistureproof cellophane, 350 MSAT; (2) moistureproof cellophane, 350 MSAT, with four $\frac{1}{4}$ -in. perforations per bag; (3) semi-moistureproof cellophane, 300 LSAT; (4) cellulose acetate, CA 120; and (5) wet-strength (50 lb.) kraft paper with cellophane window. Unwrapped open chipboard trays were used as checks. Five lemons were placed in each package with the exception that in the CA

lots four fruits in an open chipboard tray were enclosed within each bag. The MSAT and LSAT bags were closed by heat sealing, the CA bags were sealed with an adhesive and the kraft bags were stapled shut.

The packages were weighed, following which half were stored at 50 deg. F. and half at 70 deg., with storage rooms having 65 and 60% relative humidity, respectively. In each of the two tests, four replicate packages of each film type were placed at each temperature. Observations were made at weekly intervals

I. TYPICAL PACKAGE of the type studied in tests which are described herewith—a printed chipboard tray overwrapped with transparent film.

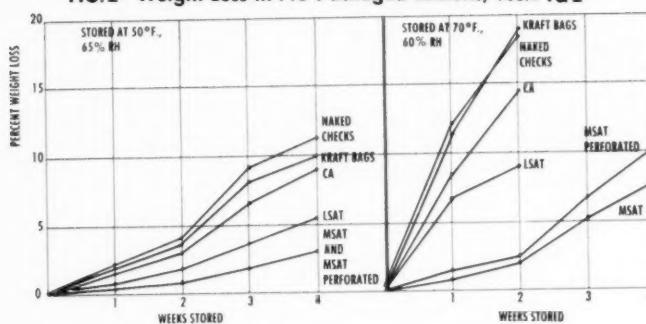


PHOTO COURTESY BOBLACK STORES.

* Assistant Physiologist and Assistant Pathologist, respectively, Division of Handling, Storage and Transportation, Bureau of Plant Industry, Soils & Agricultural Engineering of the Agricultural Research Administration, U.S. Department of Agriculture, New York.

¹ As part of Project RM-a-44, conducted under the Research and Marketing Act of 1946. Films supplied by Celanese Corp. of America, Sylvania Division of American Viscose Corp., E. I. Du Pont de Nemours & Co., Inc., and Goodyear Tire & Rubber Co. Kraft paper bags furnished by Union Bag & Paper Corp.

FIG. 2—Weight Loss in Pre-Packaged Lemons, Tests 1 & 2



for four weeks to determine weight loss, color, external appearance and general salability or shelf life. Notes were also taken of the general appearance of the packages. At each of the first three inspections the packages were examined without being opened. At the fourth inspection, made at the end of the four-week storage period, all packages were opened and flavor tests made as the lemons were cut. The results of both tests are shown graphically in Fig. 2 and are summarized together in Table I; each set of data is based on an average of eight packages.

One-week storage. At the one-week inspection little difference was noted between the variously packaged fruit held at 50 deg. F. with the exception that the lemons in the CA bags, kraft bags and check trays lost slightly more weight and in one test showed some loss of firmness. All packages held at this temperature were attractive in appearance. The fruit had bright color, good fresh appearance and all packages were considered salable.

With the exception of one MSAT package that contained a decayed lemon, all packages stored for one week at 70 deg. F. were considered salable. Weight loss was high in kraft bags and unwrapped checks, and fairly high in LSAT and CA bags. Loss in weight was accompanied by loss in firmness and freshness of the lemons, which were thus less attractive than comparable lots held at 50 deg. F.

Two-week storage. The fruit held at 50 deg. F. continued to have excellent appearance. That in the CA bags was somewhat more attractive than that in the other bags because of the excellent transparency of the film. The CA, kraft and check pack-

ages continued to lose weight and showed a slight loss of turgidity. However, no visible wilting was noted.

After two weeks at 70 deg. F. weight loss was very high in CA and kraft bags and in the check packages; consequently, the lemons were dry and were considered unsalable. Those in LSAT bags lost considerable weight, but were fairly fresh in appearance and hence, were considered still salable. The fruit in MSAT bags was fairly fresh and still salable.

Three-week storage. All fruit stored at 50 deg. F. for three weeks had a good fresh appearance. Greatest weight loss along with a loss in firmness occurred in CA bags, kraft bags and the checks. These packages were, however, still considered to be salable. Weight loss in LSAT bags was less than in the above packages, but still was over twice as great as in either perforated or non-perforated MSAT bags.

All packages at 70 deg. F. except LSAT and MSAT had been discarded after two weeks, after three weeks the LSAT bags were considered unsalable because of the poor appearance of the fruit. Lemons in perforated and non-perforated MSAT bags were still fairly fresh in appearance and were considered salable.

Four-week storage. With the exception of one perforated MSAT package containing a decayed lemon, all packages stored four weeks at 50 deg. F. were still salable and the fruit had a fresh appearance. However, considerable weight loss associated with loss of firmness occurred in the CA bags, kraft bags and the unwrapped checks. The same was true, but to a lesser extent, in the LSAT bags. The fruit in perforated and non-perforated MSAT bags lost the least

weight and remained fresh and fairly firm.

At 70 deg. only the perforated and non-perforated MSAT packages remained at four weeks. Although the lemons were fairly fresh and were considered still salable, weight loss was quite high.

Results of Test 3

The third test was begun Jan. 13, 1948. California lemons of 360 size were packed four fruit per open chipboard tray overwrapped with the following films: (1) Pliofilm, 75NF; (2) Pliofilm, 75NF with four $\frac{1}{8}$ -in. perforations per package; (3) moisture-proof cellophane, 300 PMBS; (4) moistureproof cellophane, 300 PMBS, with four $\frac{1}{8}$ -in. perforations per package; (5) semi-moistureproof cellophane, 300 LSAT; (6) cellulose acetate, CA 100; and (7) unwrapped checks. There were 18 packages of each film type and six of each kind were placed at 40 deg. F., 50 deg. F. and 70 deg. F. Relative humidities of 75, 65 and 60%, respectively, prevailed in the three rooms. Inspections were made at weekly intervals for four weeks in the manner described for Tests 1 and 2. Two packages of each film type were sampled at each temperature at the one-week inspection, one package at the two-week, one at the three-week and two packages at the four-week inspection. At each inspection the packages were opened and the lemons cut to determine their internal condition. Carbon dioxide and oxygen determinations of enclosed atmosphere were made of representative packages throughout the test.

The results of the test are summarized in Fig. 3 and Table II. The decay noted in Footnote 4 of the table, representing a single lemon affected with *Penicillium* rot in each of two packages, constituted all that occurred during the test. Although the data are not shown in the table, it may be stated that slight accumulation of carbon dioxide occurred in non-perforated Pliofilm packages (less than 1%) and in non-perforated CA packages (1.5%). An average carbon dioxide concentration of 4.0% was found in 14 non-perforated PMBS packages and an average oxygen concentration of 15.5% in nine packages. The LSAT packages had an average concentration of 2.3% carbon dioxide; four other packages had an average concentration of 5.3% carbon dioxide and 15.5% oxygen. In no case did abnormal odors or flavors develop.

One-week storage. At the one-week inspection the lemons of all lots had a good fresh appearance with the exception that at 70 deg. F. those in the LSAT and CA packages and the unwrapped checks were rated as only fairly fresh. This loss of freshness was associated with respective weight losses of 9.3, 11.7 and 15.8%, and the lemons were considered somewhat less desirable than the other lots. No physiological breakdown was observed. All packages were considered salable.

Two-week storage. At the two-week inspection LSAT, CA and check packages held at 70 deg. F. showed 19.5, 23.8 and 27.8% weight loss, respectively. The fruit was shriveled and was considered unsalable. These three lots were discontinued. All other lots were judged salable, with the notation that CA and check lots held at 42 and 50 deg. F. were only fairly fresh.

Three-week and four-week storage. At the three- and four-week inspections the appearance of the 42 deg. F. and the 50 deg. F. was much the same as at the two-week inspection. Greatest weight loss occurred in the CA and check packages so that the lemons were rated as only fairly fresh, whereas those of the other lots had a fresh appearance. Some physiological breakdown was found at three weeks and even more at four weeks; its occurrence was not closely related either to film type or difference in storage temperature (42 deg. F. vs. 50 deg. F.). Approximately 30% of the packages stored at the lower two temperatures was considered unsalable at three weeks and 40% at four weeks.

Of the 70 deg. F. lots only Plioform and PMBS packages were still available for three- and four-week inspections. Weight loss had increased since the two-week inspection; in all instances the lemons were rated as only fairly fresh instead of fresh. No physiological breakdown occurred and all packages were considered salable.

Results of Test 4

Test 4 was conducted for the purpose of making a detailed comparison of lemons packaged in perforated moistureproof cellophane with lemons packaged in non-perforated moistureproof cellophane. Particular emphasis was placed on determining to what extent carbon dioxide was accumulated and oxygen depleted in non-perforated packages and on learning if they were related to subsequent development of membranous stain or decay.

TABLE I.—RESULTS OF LEMON PRE-PACKAGING TESTS 1 AND 2
(Data based on averages from eight packages of each film for each temperature).

Film type	Storage period (weeks)	Stored at 50° F.			Stored at 70° F.		
		Weight loss %	Freshness ¹	Salability	Weight loss %	Freshness ¹	Salability
MSAT	1	0.1	F.	Yes	0.8	F.	Yes ²
MSAT-perf.	1	0.2	"	"	1.3	"	"
LSAT	1	0.6	"	"	6.8	"	"
CA	1	1.2	"	"	8.4	"	"
Kraft	1	1.8	"	"	11.4	"	"
Naked-checks	1	1.6	"	"	11.8	"	"
MSAT	2	0.6	F.	Yes	1.9	F.F.	Yes ²
MSAT-perf.	2	0.6	"	" ²	2.5	"	"
LSAT	2	1.6	"	"	9.0	"	"
CA	2	2.8	"	"	14.4	Dry	No
Kraft	2	3.6	"	"	19.0	"	"
Naked-checks	2	3.8	"	"	18.5	"	"
MSAT	3	1.6	F.	Yes	5.2	F.F.	Yes ²
MSAT-perf.	3	1.7	"	" ²	6.7	"	"
LSAT	3	3.5	"	"	—	Shr.	No
CA	3	6.5	"	"	Discarded after second week		
Kraft	3	8.0	"	"	Discarded after second week		
Naked-checks	3	8.9	"	"	Discarded after second week		
MSAT	4	2.7	F.	Yes	7.8	F.F.	Yes ²
MSAT-perf.	4	2.8	"	" ²	10.2	"	"
LSAT	4	5.4	"	"	Discarded after third week		
CA	4	8.7	"	"	Discarded after second week		
Kraft	4	9.8	"	"	Discarded after second week		
Naked-checks	4	11.2	"	"	Discarded after second week		

¹F. = fresh; F.F. = fairly fresh; Shr. = shrunken; Dry = skin badly shrunken, hard and dry.

²One of eight packages not salable because of presence of one lemon affected with *Penicillium* rot. The same package is represented in the two-, three- and four-week inspections.

The test was begun July 18, 1951, with California lemons, size 300, purchased on the wholesale market. Two lots were used, each representing a different packing house (designated A and B). Thirty chipboard trays containing five lemons each were packed from each lot and overwrapped with moistureproof cellophane, 350 MSAT. Half of the packages were then perforated with two $\frac{1}{4}$ -in. holes and half

left with no perforations. Six trays of each lot (three perforated and three non-perforated) were placed at 70 deg. F. for inspection after one week. The remaining 24 were divided for storage as follows: 12 packages of each lot (six perforated and six non-perforated) at 38 deg. F. and 12 packages (six perforated and six non-perforated) at 55 deg. F. for four weeks. The relative humidity in both rooms

FIG. 3—Weight Loss in Pre-Packaged Lemons, Test 3

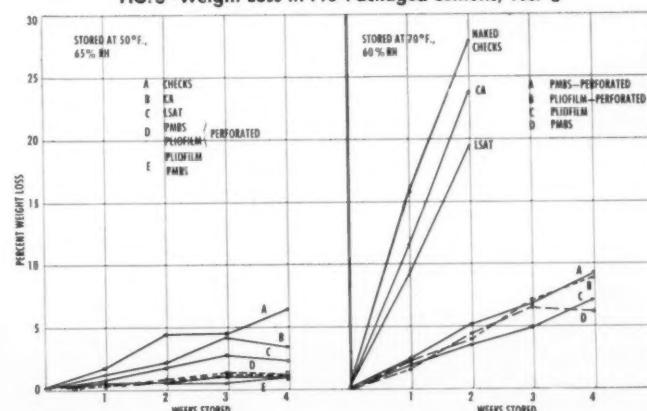


TABLE II—RESULTS OF LEMON PRE-PACKAGING TEST NUMBER 3

Film type	Stored one week					Stored two weeks				
	Storage temperature ° F.	Physiological breakdown %	Weight loss %	Freshness ^a	Salability	Physiological breakdown %	Weight loss %	Freshness ^a	Salability	
Pliofilm	42	0	0	F.	Yes	0	0.8	F.	Yes	
Pliofilm perf.	42	0	0.5	"	"	0	0.7	"	"	
PMBS	42	0	0.3	"	"	0	0.5	"	"	
PMBS-perf.	42	0	0.4	"	"	0	0.8	"	"	
LSAT	42	0	1.1	"	"	0	2.5	"	"	
CA	42	0	1.8	"	"	0	3.8	F.F.	"	
Check-naked	42	0	2.2	"	"	0	4.4	"	"	
Pliofilm	50	0	0.4	F.	Yes	0	0.5	F.	Yes	
Pliofilm-perf.	50	0	0.2	"	"	0	0.5	"	"	
PMBS	50	0	0.6	"	"	0	0.5	"	"	
PMBS-perf.	50	0	0.2	"	"	0	0.7	"	"	
LSAT	50	0	0.7	"	"	0	1.8	"	"	
CA	50	0	1.1	"	"	0	2.0	F.F.	"	
Check-naked	50	0	1.3	"	"	0	4.4	"	"	
Pliofilm	70	0	2.0	F.	Yes	0	3.6	F.	Yes	
Pliofilm-perf.	70	0	2.3	"	"	0	4.0	"	"	
PMBS	70	0	1.7	"	"	0	4.4	"	"	
PMBS-perf.	70	0	2.4	"	"	0	5.2	"	"	
LSAT	70	0	9.3	F.F.	"	0	19.5	Shr.	"	
CA	70	0	11.7	"	"	0	23.8	"	"	
Check-naked	70	0	15.8	"	"	0	27.8	"	"	
Film type	Stored three weeks					Stored four weeks				
	Storage temperature ° F.	Physiological breakdown %	Weight loss %	Freshness ^a	Salability	Physiological breakdown %	Weight loss %	Freshness ^a	Salability	
Pliofilm	42	0	0.7	F.	Yes	13.0	1.0	F.	Half ^b	
Pliofilm-perf.	42	0	1.5	"	"	0	1.3	"	Yes	
PMBS	42	25.0	1.0	"	No	0	1.2	"	"	
PMBS-perf.	42	0	1.0	"	Yes	50.0	1.6	"	No	
LSAT	42	0	0.7	"	"	50.0 ^c	4.0	"	No	
CA	42	0	4.9	F.F.	"	13.0	7.5	F.F.	Half	
Check-naked	42	0	7.1	"	"	13.0	8.9	"	"	
Pliofilm	50	0	0.5	F.	Yes	25.0	0.9	F.	Half	
Pliofilm-perf.	50	0	1.2	"	"	0	1.3	"	Yes	
PMBS	50	50.0	1.0	"	No	13.0	0.8	"	Half	
PMBS-perf.	50	0	1.5	"	Yes	13.0	1.2	"	"	
LSAT	50	0	2.6	"	"	0	2.3	"	Yes	
CA	50	25.0	4.2	F.F.	No	13.0 ^c	3.5	F.F.	Half	
Check-naked	50	25.0	4.3	"	"	0	6.3	"	Yes	
Pliofilm	70	0	5.0	F.F.	Yes	0	7.2	F.F.	Yes	
Pliofilm-perf.	70	0	7.1	"	"	0	9.1	"	"	
PMBS	70	0	6.7	"	"	0	6.4	"	"	
PMBS-perf.	70	0	6.9	"	"	0	9.2	"	"	
LSAT	70	Discarded after second week				Discarded after second week				
CA	70	Discarded after second week				Discarded after second week				
Check-naked	70	Discarded after second week				Discarded after second week				

^a Physiological breakdown includes membranous stain and a type of breakdown similar in appearance to internal decline. Slight stages that appeared to be of no commercial importance not included.

^b F. = fresh; F.F. = fairly fresh; Shr. = shriveled.

^c Half = one of two packages considered salable, the other unsalable.

^d Including 13% *Penicillium* rot.

was 85%. After four weeks' storage the packages were removed from storage and half of each group was inspected immediately while the remaining half of carbon dioxide and oxygen were for an additional week and then examined.

At each inspection, determinations of each group was placed at 70 deg. F.

made within the packages and the lemons were examined externally and internally.

When the test was started 5% membranous stain was found in lot B lemons (20-fruit sample) and none in those of lot A. In the packages held at the start of the test for one week at 70 deg. F. no increase in membranous

stain was noted. At the end of this one-week holding period the carbon dioxide content of the atmosphere within the non-perforated packages ranged from 5.2 to 7.0% and the oxygen content from 14 to 16%.

The results from the storage test with the other 48 packages are summarized in Table III. Carbon dioxide accumulation and oxygen depletion were significant only in the non-perforated packages. About half of these showed a carbon dioxide content of 5% or greater (up to 18%); somewhat less than half showed the oxygen content of the enclosed atmosphere depleted to 15% or less (minimum concentration reaching 5.5%). The large variation in gas concentration in the packages was possibly due to difference in gas-tightness of the seals. All membranous stain noted was scored as either trace or slight and none was considered commercially important. The data in Table III clearly show that no relationship existed between prevalence of membranous stain and carbon dioxide or oxygen content of the package atmosphere. No abnormal odors or flavors were noted throughout the test. Taking into consideration all packages of the test, approximately 12% of the lemons from each of the two packing houses became affected with *Penicillium* rot.

Results of Test 5

A test similar to the preceding one, but on a more comprehensive scale, was conducted during July and August, 1951, with California lemons, 300 size, from a storage experiment in which four picking maturities from each of two growing districts were represented (or eight lots in all). At the start of the storage experiment four open chipboard trays (containing five lemons each) were prepared from each of the eight lots referred to above and overwrapped with moistureproof cellophane, 350 MSAT. Two of the packages were perforated with two 1/4-in. holes, and one perforated and one non-perforated package placed at each of two storage temperatures, namely 38 deg. F. and 55 deg. F. Inspections were made on the 32 packages at the end of a four-week storage period. A similar set of 32 packages was prepared from lemons packed in standard boxes that had been held in storage for four weeks at either 38 deg. F. or 55 deg. F. (the lemons pre-packaged from them being returned to the same temperatures for another

four weeks). Likewise a third set of 32 packages was prepared from standard crates that had been in storage eight weeks at either 38 deg. or 55 deg. F.—the pre-packaged lemons being returned to their respective temperatures four additional weeks.

The results obtained, although not here presented in tabular form, were much the same as with Test 4. There was practically no depletion of oxygen or build-up of carbon dioxide in the perforated packages. Approximately 25% of the non-perforated packages showed a carbon dioxide build-up of 5% or greater (up to 10%) and a similar percentage showed a depletion of oxygen within the enclosed atmosphere to 15% or less (with a minimum concentration of 12%). No abnormal odors or flavors were noted throughout the test. When the pre-packaged lemons were examined at the conclusion of the several four-week storage periods, membranous stain was found alike in both perforated and non-perforated packages. No relationship was found between incidence of membranous stain and carbon dioxide or oxygen content of the enclosed atmosphere in the non-perforated packages. Practically no decay occurred during the test.

Discussion and conclusions

The tests here reported show that a number of different transparent films can successfully be used for the pre-packaging of lemons. The chief difference between the several films tested lay in the relative rate of weight loss and consequent shriveling of the pre-packaged fruit. This, in turn, resulted in differences in length of shelf life or the period during which the pre-packaged lemons were considered to remain in a salable condition. Weight loss, shriveling of fruit and consequent variation in shelf life were also dependent upon the storage temperature at which the lemons were held after pre-packaging.

The first two tests indicated that by pre-packaging lemons with either perforated or non-perforated moisture-proof cellophane they could be held in good, fresh, salable condition for one or possibly two weeks at 70 deg. F. and for three or possibly four weeks at 50 deg. Semi-moistureproof cellophane, cellulose acetate and kraft-paper window bags permitted such rapid weight loss at 70 deg. that lemons so pre-packaged behaved very similarly to unwrapped lemons and

TABLE III—RESULTS OF LEMON PRE-PACKAGING TEST NUMBER 4
(Data are given for each package examined)

Film type	Storage temperature °F.	Packing hour	Stored four weeks at indicated temperature				Stored four weeks plus 1 addl. wk. at 70° F.			
			Carbon dioxide %	Oxygen %	Decay ¹ %	Membranous stain ² %	Carbon dioxide %	Oxygen %	Decay ¹ %	Membranous stain ² %
MSAT	38	A	1.7	18.5	0	20.	2.0	19.5	0	20.
MSAT	38	A	1.2	19.0	0	20.	9.4	11.0	40.	0
MSAT	38	A	2.0	19.0	0	0	5.8	15.5	0	20.
MSAT-perf.	38	A	0	20.0	0	0	0	20.0	0	0
" "	38	A	—	—	0	20.	—	—	20.	20.
" "	38	A	—	—	0	40.	—	—	0	40.
MSAT	38	B	1.4	18.0	20.	0	14.4	10.5	0	0
" "	38	B	3.0	17.5	0	0	3.2	17.5	0	0
" "	38	B	2.0	17.0	0	0	8.6	16.5	60.	0
MSAT-perf.	38	B	0	20.0	0	0	1.4	19.0	60.	0
" "	38	B	—	—	0	0	0	20.	0	0
" "	38	B	—	—	0	0	—	—	0	0
MSAT	55	A	18.0	10.0	40.	0	5.0	16.5	20.	20.
" "	55	A	4.6	16.5	0	20.	2.2	17.5	0	0
" "	55	A	6.0	15.0	20.	40.	13.0	9.5	60.	0
MSAT-perf.	55	A	0	20.0	20.	0	0	20.0	0	20.
" "	55	A	—	—	40.	40.	—	—	0	20.
" "	55	A	—	—	60.	40.	—	—	0	20.
MSAT	55	B	5.8	13.5	0	40.	15.4	5.5	20.	0
" "	55	B	9.6	9.0	0	0	3.8	17.2	0	20.
" "	55	B	5.8	14.0	0	0	11.8	8.0	100.	0
MSAT-perf.	55	B	0	20.0	0	0	0	20.5	0	40.
" "	55	B	—	—	0	20.	—	—	0	20.
" "	55	B	—	—	0	20.	—	—	0	0

¹ All decay was *Penicillium* rot.

² All membranous stain was scored as a trace or slight and was not considered to be commercially important.

should probably have been packaged only for immediate display and sale. However, when held at 50 deg. following pre-packaging, lemons in cellulose acetate and kraft-paper window bags had a shelf life of one week and those in semi-moistureproof cellophane bags a shelf life of one or possibly two weeks.

In the third test it was found that lemons overwrapped with perforated or non-perforated Pliofilm and perforated or non-perforated moisture-proof cellophane remained in good, salable condition for two weeks at 70 deg. F. Lemons overwrapped with either non-perforated semi-moisture-proof cellophane or non-perforated cellulose acetate as well as unwrapped fruit had a shelf life of only one week at 70 deg. F. because of moisture loss and shriveling of the fruit. On the basis of such factors as weight loss and freshness of fruit, shelf life of unwrapped lemons held at either 42 deg. F. or 50 deg. was two weeks, while lemons overwrapped with cellulose acetate held up well for two to three weeks and those overwrapped with

the other films had a shelf life of four weeks.

The final two tests showed that, to all appearance, lemons were little affected by four weeks' enclosure in non-perforated moistureproof cellophane even when a pronounced build-up of carbon dioxide and depletion of oxygen occurred. There was likewise no effect on development of membranous stain by enclosure in non-perforated moistureproof cellophane. It should be pointed out, however, that equally good results were secured with perforated as with non-perforated moistureproof cellophane; where Pliofilm was used, results likewise were the same with the perforated as with the non-perforated film.

From a commercial viewpoint it would appear that a wide variety of films can be used in pre-packaging lemons—particularly if the fruit is packaged for prompt retail distribution. If it is desired to pre-package some time before the lemons are to be placed on sale, the chief factors that need to be considered are decay and shriveling of the fruit.

Questions & Answers

This consultation service on packaging subjects is at your command. Simply address your questions to Technical Editor, Modern Packaging, 575 Madison Ave., New York 22, N. Y. Your name or other identification will not appear with any published answer.

Automatic assembly and wrapping

QUESTION: We are looking for a machine that will interleaf a piece of wax paper between rigid rectangular objects, count them into uniform stacks and wrap them in quantities of 24 pieces to a bundle. This bundle can be taped in two directions or completely wrapped. The machine does not have to operate at particularly high speed. We are at present doing this operation by hand, but increasing production makes it imperative to find some machine method. We would appreciate your suggestions.

ANSWER: From the description of your material it would appear that a combination of two separate machines would give the result you desire. Your product is a rigid and symmetrical item; therefore, there should be no problem of feeding it through a conventional wrapping machine. There are many types of wrapping machines with varying capacities, speeds, size ranges, etc. These machines can be equipped with means for applying glue to a thin paper or to heat seal certain grades of wax paper. As the wrapped units come from the machine they can be assembled and stacked by an operator and wrapped into a bundle by hand or by machine. There are machines available which can perform the stacking and assembling. Such a production line would have a capacity for a very large number of units and would be simpler and easier to obtain than a single machine to do the two jobs.

Filling powdery product in bags

QUESTION: One of our products is a very finely divided inert powder which we pack in paper bags in varying sizes up to 100 lbs. in weight. We wish to expand production of this item and would like to improve on our present method of filling these bags. The method we are now using results in a considerable amount of

powder being puffed out of the bag at the time of filling. Can you help us solve our problem?

ANSWER: There are two possible solutions to the problem you are encountering of finely divided solids puffing during a bag-filling operation.

One method consists of using a paper bag which is made from a paper having specified air porosity. When the paper used has a high degree of air porosity there is much less tendency for the incoming product to puff out into the room. Such bags are used by the flour industry with satisfactory results.

The second method is to use a shrouded filler which may or may not also use a vacuum filling principle. With the shrouded filler the bag is slipped over the filling spout and a sleeve or hood comes down over the unit while the filling takes place. The shroud is then lifted and the bag goes on to the closing machine. Such a filling device can also be used with a vacuum attachment for compacting particularly fluffy products.

Both methods are well tested and commercially used. It is suggested that you try the first method before trying the shrouded type of filler.

How to make flexibility tests

QUESTION: We are interested in the table of properties of barrier materials shown on p. 146 of the 1952 Packaging Encyclopedia—particularly in a comment concerning the flexibility of the various materials listed. We would like to know how the flexibility was determined and if there are laboratory means for testing flexibility.

ANSWER: The information given in this table of properties of certain flexible packaging materials was obtained from a variety of sources.

However, there are several instruments available which make it possible to test in the laboratory the flexi-

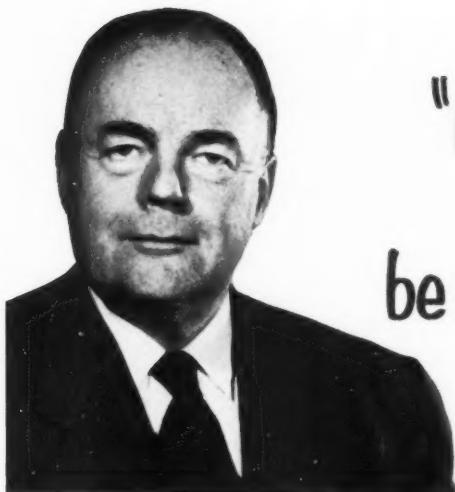
bility of many different kinds of materials. The use of such instruments is preferable to developing such information by hand folding, etc. Instruments have the advantage in that they can be used at different temperatures and the results are expressed with numerical values that can be compared with later tests.

Adhesion of ink to polyethylene

QUESTION: We are attempting to print a multicolored design on polyethylene film of heavy gauge. We have tried different types of inks and printing processes and have had difficulty in variations in the adhesion of the ink. Can you suggest any methods of improving the adhesion of inks to polyethylene or any printing process which gives superior results?

ANSWER: There are many problems in connection with securing the maximum possible adhesion of printing inks to the surface of polyethylene. Polyethylene is inert to attack by solvents and this prevents many inks from being securely anchored to it, particularly if the film is exposed to severe flexing or dampness. Probably the best answer to your question is to contact the various suppliers of polyethylene film sheeting and ask them for technical assistance.

Some of the polyethylene suppliers are offering a product which has been given a surface treatment that greatly improves the adhesion of inks of nearly any type and process. Many ink companies have developed inks of different types which have greatly improved adhesion to polyethylene over the inks that were available a few years ago. You will probably get the very best results in ink adhesion if you obtain a special film or sheeting which has been treated for ink adhesion and use one of the special inks developed for polyethylene, at the same time being guided by the help or advice of manufacturers.



"My job is to help
your package
be a better salesman"

SAYS DONALD K. SHOOP
DU PONT CELLOPHANE REPRESENTATIVE



AT THE POINT OF SALE . . . that's where a good selling package proves itself! It's necessary to evaluate the effectiveness of your package by checking its performance in stores . . . in active competition. I've found on-the-spot study often results in package improvements that mean more sales.



TODAY DU PONT makes over 50 types of Cellophane and other transparent films to fit specific product needs. It's my job to make sure your package gets the right film to produce best results.



FULL-COLOR ADVERTISEMENTS, run each month by Du Pont in national magazines, build consumer preference for products in Cellophane. They influence shoppers to associate product quality with Cellophane packages. I'll be glad to show you how to tie in with a promotion of your own.

YOUR Du Pont Cellophane Representative, like Donald Shoop, is ready to help your package win more sales. Call him when you're planning a new package, or if you'd like to improve your present one. He'll be glad to translate Du Pont's services and 25 years of packaging experience into actual sales benefits for your product. E. I. du Pont de Nemours & Co. (Inc.), Film Department, Nemours Building, Wilmington 98, Delaware.

DuPont Cellophane



REG. U. S. PAT. OFF.

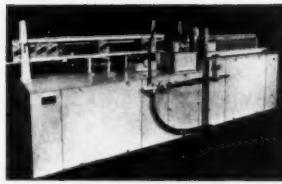
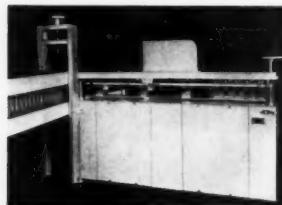
150th Anniversary

BETTER THINGS FOR BETTER LIVING... THROUGH CHEMISTRY

Equipment and materials

A NEW AUTOMATIC CARTON SEALER

for handling retail-sized cartons has been developed by J. B. Bellamy & Co., 107 Main St., San Francisco. The completely automatic sealer comprises two separate units: a bottom sealer (upper photo), complete with automatic feed and carton magazine, and a top sealer, including a compression or drying section. The units may be used together, with any type of carton-filling operation in between, or they may be used individually for operations where only the bottoms or tops of the cartons are to be glued sealed. Speeds of 65 cartons a minute are claimed, with one operator to keep the bottom sealer's carton-supply magazine filled. Change-over from one size to another is said to require 15 to 20 minutes for both units. The machine handles sizes from a small gelatin-type carton up to a giant soap carton, with no added parts, except for an extreme size range. The sealer can also be furnished to utilize pre-lined cartons.



minutes for both units. The machine handles sizes from a small gelatin-type carton up to a giant soap carton, with no added parts, except for an extreme size range. The sealer can also be furnished to utilize pre-lined cartons.

A NEW ANGLE HEAT SEALER

for "sealing around corners" has been introduced by Packaging Industries, 50 Church St., Montclair, N. J. Use of this equipment, it is said, permits the making of side and end seals in one operation and provides accurate control of temperature, pressure and dwell time. It is also possible to make a pouch bag with heat seals on three sides with one heat-sealing operation. The equipment is available with jaws of various lengths, set at various angles (or "U" shaped)



and constructed for right- or left-hand use. Heat range is up to 500 deg. F., with jaw pressures up to 80 lbs. and dwell time in split seconds up to 15 seconds. The unit is designed to make uniform seals on all laminated or coated barrier materials.

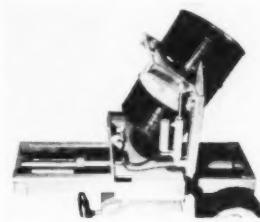
STOCK CONVEYOR UNITS

for making custom-built conveyor lines are manufactured by the Standard Conveyor Co., North St. Paul, Minn. Known as the Handidrive "1000," stock units include a center drive and take-up assembly, for driving the return strand of belt; a triple snub assembly, for transferring from horizontal to incline; an end-type drive unit for use with drive at head end of conveyor; an end-type take-up for use at the tail of the conveyor; and an end-type roller assembly for use with center-type drive. These units are a companion series to the Handidrive "400" units and

will handle a 1,000-lb. belt pull. The greater capacity of the "1000" series provides an extensive field of application for longer conveyors carrying greater loads. For many applications, it is claimed, a system of the units will give the same efficient operation that heretofore required complete engineering design.

A NEW DRUM UP-ENDER ATTACHMENT

which permits a fork-truck operator to pick up, transport, stack and empty heavy drums without leaving his seat has been developed by Baker-Rauling Co., 1250 W. 80th St., Cleveland, Ohio. Drums can be rotated 90 deg. for vertical or horizontal stacking, or tilted 45 deg. below horizontal for emptying at any height within the lift range of the truck. The attachment consists of shoes that are pinned to the forks of the Baker four-purpose carriage. Mounted on the shoes are pivoted rubber-faced grab plates which clamp around the drum and hold it firm. The up-ending operation is accomplished by means of a hydraulic cylinder mounted on one of the shoes. The up-end attachment is said to be easy to demount.



CRINKLED KRAFT MULTIWALL BAGS

are now offered by National Waterproof Papers, Inc., Camden, N. J. The bags are produced in two to six plies. Single or laminated sheets of regular or wet-strength kraft are used. Protection for moisture-sensitive products may be obtained by incorporating wax impregnated, asphalt-laminated or polyethylene-coated plies. The bags are offered in any size up to 36 in. wide, with a maximum of 44 in. for some applications. Four-color printing is available on a quantity basis. The company also makes a polyethylene liner that meets Government specifications for products requiring special protection in shipping and storage.

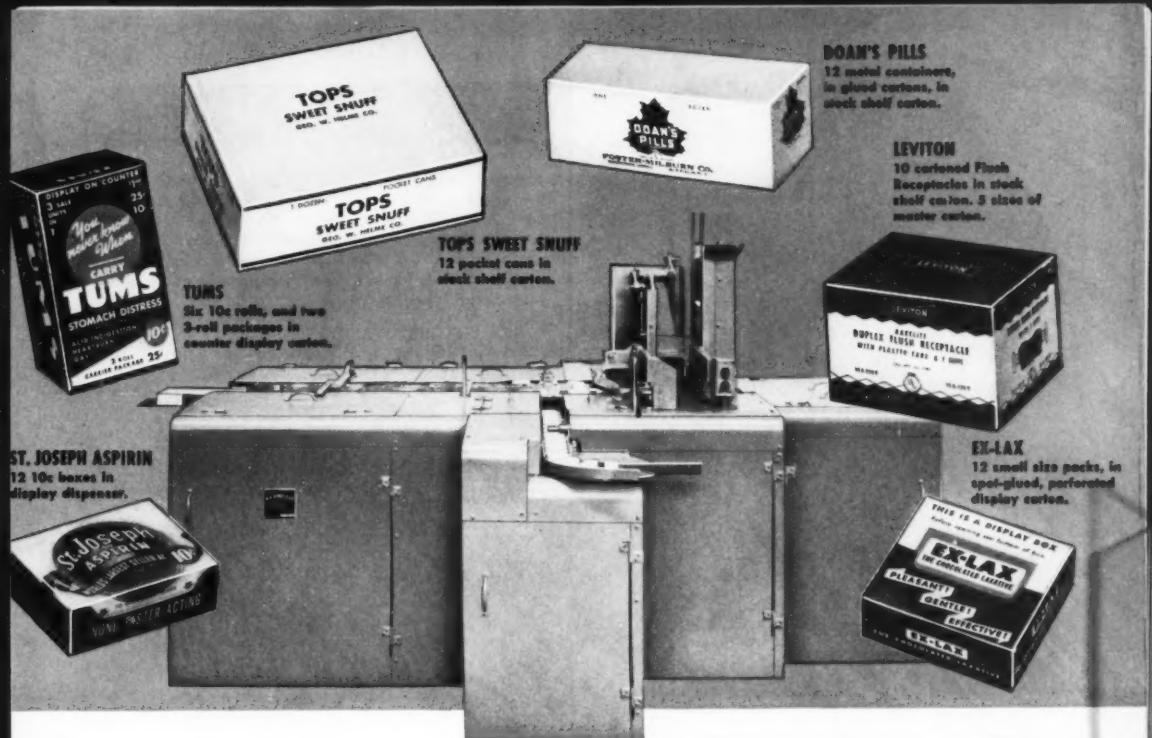
A NEW CAM-GRIP BAG HOLDER

for use when filling bags with bulk commodities is announced by Richardson Scale Co., Clifton, N. J. The bag holder, with special self-locking cam-grip, is especially designed to suspend 50-, 80- and 100-lb. multiwall paper bags while being filled. The bag holder mounts on a spout which the user bolts to the hopper or bin outlet. Empty bags are slipped over the mouth of the spout and up under the cams. The positive cam-grip holds the bags in place during filling. To release a filled bag, a semi-circular release bar is pushed up, freeing the cams and allowing bag to drop to conveyor or skid.



A NEW PAPER-TREATING RESIN

is announced by the Plaskon Div., Libbey-Owens-Ford Glass Co., 2112 Sylvan St., Toledo, Ohio. The new resin, designated Plaskon Aminoplast 348-II-L, is said to provide superior wet strength, with test and production runs showing that the



DO YOU PACK IN dozens?

AS THE PRODUCTION RATE of packaging lines has increased, more and more operators are needed to get the product into the master carton for shelf storage or display.

This costly operation is completely mechanized by the Jones Accumulator Cartoner. The flexibility of the basic machine permits its adaptation to wide variations in size, quantity, and arrangement of loads. It offers users money-saving and money-making advantages:

Receives individual containers automatically from preceding machine.

Stacks in prescribed arrangement—automatically insures correct count.

Feeds, opens and loads master carton—closes end flaps by tucking or gluing.

Prints control or catalog numbers, color, flavor or other variable information, simplifying carton inventory.

Produces rigid, tamperproof, sealed containers, difficult to obtain by hand packing.

For display cartons, a skip-glued longitudinal seam insures easy opening and proper set-up, without mutilating carton.

Fully automatic, the Accumulator Cartoner usually requires only part-time attention. Seventy-five percent or more of operator's time available for packing master cartons into shipping containers.

High operator efficiency justifies Accumulator Cartoner for output of only one line.

Speeds of 5 to 100 master cartons per minute enable one cartoner to handle output of two or more lines where needed, eliminating from 2 to 15 operators.

**R. A. JONES
& COMPANY, INC.**

Ask us for detailed information, or submit your problems to Jones' experienced cartoning engineers for prompt diagnosis.

P. O. BOX 2055, CINCINNATI, OHIO



...if so, here's how the Peters Way can help you

Meeting individual requirements is standard procedure for Peters Machinery Company. Frequently these "different" requirements involve the type of package to be used—and, particularly, the advantages of an open-top carton. Sometimes the differences are in engineering and operation of equipment . . . sometimes in installation layout.

Whatever your differences may be, look for a solution in the Peters Way. Send carton sample for specific recommendations.

Be sure to have your free copy of "The Peters Way to Better Packaging." Write for it.



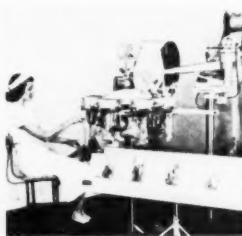
Peters
MACHINERY CO.

4712 Ravenswood Ave., Chicago 40, Ill.

Equipment and materials

aminoplast resin delivers up to 33% more wet tensile strength than equal amounts of another resin commonly used. It is therefore claimed that the new resin can reduce costs in producing wet-strength paper. The new resin is said to be readily soluble, even in cold water, and may be added by any of the standard methods for introducing wet-strength resins into the paper-making operation.

A NEW WEIGHER-FILLER



for handling such products as potato chips and similar items is manufactured by Wright Machinery Co., Durham, N. C. Called the Model H Hy-Tra-Lec, the weigher is said to have a weight range of $\frac{1}{2}$ to 2½ oz. Production speeds of 50 to 55 bags a minute are reported. Key to the machine's weighing operation is said to be an exclusive

patented utilization of the principles of positive displacement.

Bags are placed manually on spouts of a turret for receiving the automatically weighed products. Exceptional weighing accuracy is claimed.

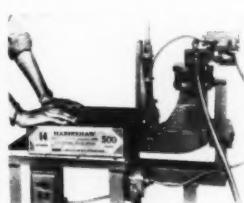
A NEW PLASTIC POURING SPOUT

available on 5-gal. metal containers is produced by Crown Cork Seal Co., Eastern Ave. and Kresson Sts., Baltimore, Md. It is designed to allow safe stacking of open-head pails and closed-head drums in storage and shipping, and prevents contamination of container contents by rust when being poured. The reversible spout is a rigid curve reaching to the edge of the container and permits pouring without container interference. The reversible feature also protects the spout from damage. It is adapted to a $1\frac{1}{10}$ I.D. screw-type nozzle and has a 1-in. inside diameter to permit fast pouring. Various colors are available.



AN AUTOMATIC CARTON STAPLER

with retractable anvil is announced by the International Staple & Machine Co., 801 E. Herrin St., Herrin, Ill. This new model, the THI-HAS, is recommended by the manufacturer for closing overlap cartons and end closures on long, narrow cartons of either the overlap or slotted type. It is air operated and functions automatically when the operator presses the carton against the stapling head. Stapling of filled cartons, fibre or corrugated, is done from outside the carton. The unit can be adjusted for concealed stapling. When adjusted in this manner, the staple



penetrates approximately two-thirds of the way through the carton wall and is clinched. Cartons closed by this method are said to meet full requirements of the CFC and have approval of the Post Office. The entire assembly is mounted on a stand-

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Armstrong's Glass Containers can do a lot to make your bottling operation more profitable. They're precision-engineered to perform better on your filling lines. Their uniform finish and carefully formed base contours help keep lines flowing smoothly . . . step up efficiency . . . trim downtime to a minimum. Performance like that pays off—in greater economy, increased production, more profits. Get further information on Armstrong's complete packaging service today. Just contact your near-by Armstrong representative or write direct to Armstrong Cork Company, Glass and Closure Division, 2305 Prince Street, Lancaster, Pennsylvania.



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Equipment and materials

ard-sized, flat-top, stainless-steel table designed to accommodate cartons of various sizes. Air pressure required is 60 lbs. per sq. in.

MACHINE FOR WET PACKING IN FILM

is produced by Edfin Packaging Machinery Corp., 2632 Grand Ave., New York. Operators drop the film bag on the unit's circular conveyor and fill the bag with sauerkraut, pickles, oils, brine and other liquid-and-solid combinations.

The product can be supplied to the operators from a counter mounted above the conveyor and in the center of the machine. Brine is automatically dispensed in the exact amount, the filled bag is checked weighed and then carried to air-extraction and sealing sections. Filled bags are automatically positioned before entering the sealer to assure perfect mouth bonding.

The brine tank holds 60 gal. and has a large mouth spigot for quick refilling. Automatic control float in the tank permits use of overhead supply reservoirs. Construction is all steel, with parts in contact with brine being made of stainless steel. The conveyor is supplied in any length up to 15 ft.

A NEW NOVELTY PACKAGE



for scarves, hosiery, toiletries, candy, etc., is being produced by Max Rubin & Sons, 53 Greene St., New York. Called the No. 748 basket, it has a flexible "Aeroflex" handle, which goes through the cover of the transparent polystyrene box. This prevents loss of the cover. The flexibility of the handle, which is colored red or white, permits the cover to be swung completely out of the way to give access to the contents. The size of the basket is 4½ in. in diameter and 2¾ in. high. It comes in clear and various translucent and opaque colors, as well as decorated with hand-painted flowers.

AN IMPROVED CREPE WRAP

known as Cadwrap has been introduced by Cadillac Products, Inc., 2300 Gainsboro, Ferndale, Mich. It consists of sheets of heavy crepe paper between which are fastened cushioning layers of excelsior. The integral wrapping is then tailored to fit each part or product and is usually held in place by "Cadclips," which permit easy nesting and handling of oddly formed units.

A NEW FILLER

featuring mechanical parts located above the filling station is manufactured by Stokes & Smith Co., Frankford, Philadelphia 24, Pa. Such arrangement is designed to keep all parts free from dust and help reduce cleaning and maintenance. The new E G Universal filler is adaptable for rotary and in-line conveyor filling, and its adjustable table permits it to fill by pack, weight or volume, using a minimum number of augers. Auger speed is adjustable from 500 to 1,000 rpm. The filler can be pre-timed

*M*akes

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(automatic hydraulic aniline printing press)

This is the universal printing unit for every package printing need. Its unsurpassed performance, versatility and ease of operation are setting new standards for evaluating press performance in the packaging industry.

- instant on and off hydraulic impression control
- free-wheeling constant rotating ink rollers
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- one single impression drive gear (no backlash)
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If profits are your motive, you definitely need to know more about the high-speed quality printing the "Wolverine Hydro-Printer" will produce. Illustrated literature is available.



"Wolverine Cub Sheeter"—the most accurate and highest speed sheeter on the market.
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Equipment and materials

to pace the operator for more efficient production. It also features a convenient, simplified control panel for fingertip change-over. Fine and coarse products may be filled more accurately through a micrometer adjustment.

A NEW LINE OF PLASTIC TUMBLERS



popular for premium use, have been introduced by the Rogers Plastic Corp., West Warren, Mass. The tumblers are produced in metallic colors and have white "lock-tite" covers, which also double as coasters. The containers are being used for packaging cottage cheese and honey, and because of their value for re-use are suggested as a premium package.

A NEW COTTON STRAPPING

employing special lock keys has been introduced by the Chicago Printed String Co., 2300 Logan Blvd., Chicago 47, Ill. The non-woven strapping is made of strong cotton yarn. It is said to have high shock resistance and negligible stretch. The special lock keys allow the strapping to be drawn taut and secured without denting the edges of a carton. Fibreboard cartons up to 75 lbs. in weight, it is said, can be safely secured and reinforced with the tape, use of which is authorized by Consolidated Classification Committee: Rule 41, Section S, Item 2. The strapping is supplied complete with patented keys and a handy dispenser holding a 500-yd. spool. The strapping is available in unbleached white in widths of $\frac{3}{8}$ in., $\frac{1}{2}$ in. and $\frac{9}{16}$ in. Solid colors or imprints can be had on special order.



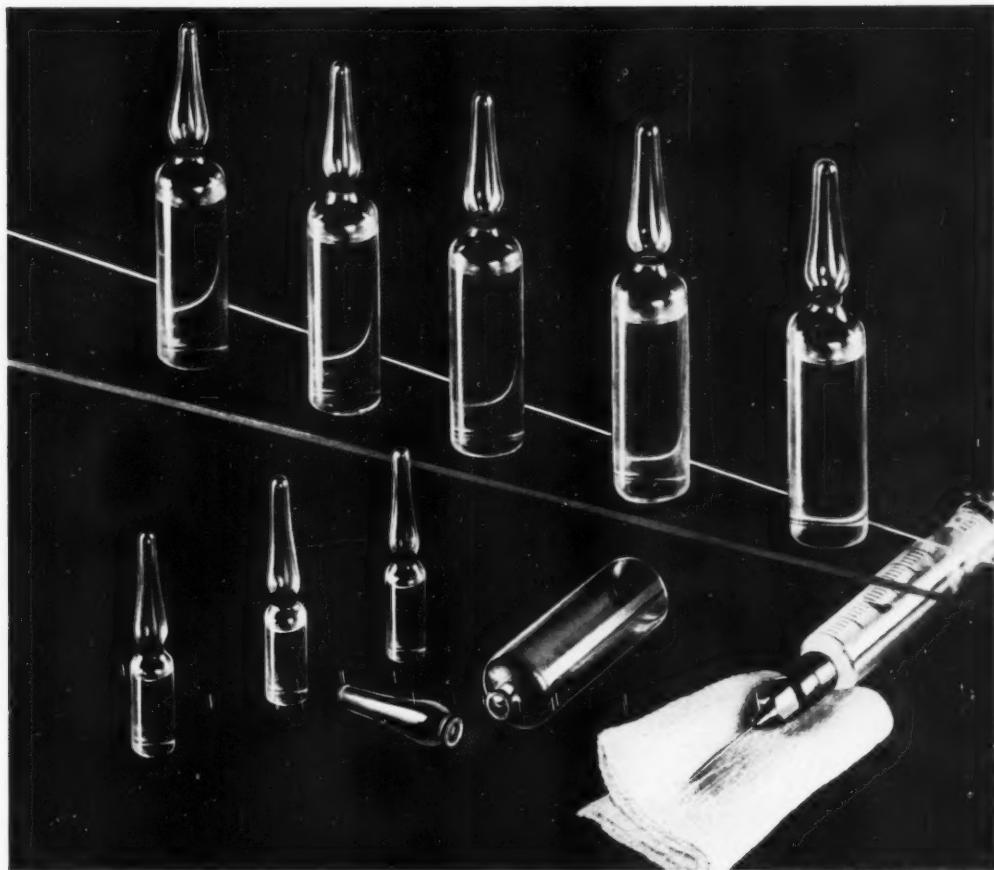
"LITTLE LULU" DAIRY TUMBLERS

have been introduced by the Dairy Container Division, Owens-Illinois Glass Co., Toledo, Ohio, in six applied color designs for dairy products. In addition to Little Lulu, the new series of designs includes Alvin & Gunk, Gloria & Tipper, Wilbur Van Snobbe, Annie & Mops and Tubby Tom. All designs are in two solid colors with two applied color applications for use on any Libbey tumbler.



A DISTINCTIVE BOTTLE TAG

in the form of a gold-finish booklet with gold elastic band is produced by Metlon Corp., 432 Fourth Ave., New York. The gold elastic band, said not to tarnish or to be affected by exposure, slips over the neck of a bottle and adds a high-quality look to the package appearance. The booklet can be embossed and product story can be told on inner pages.



GRIP . . . BEND . . . SNAP—
Neutraglas Color-Break Ampuls are ready to use!

Now—give your product perfect protection in new **KIMBLE COLOR-BREAK AMPULS**

Here's the package you've always wanted—can't be tampered with . . . keeps your product pure and unadulterated . . . and, now, *easy to open*.

Neutraglas Color-Break* Ampuls are inert to their contents. Solvents, chemicals, sterilizing agents—even distilled water—find these ampuls persistently

indifferent to chemical action.

There's no filing . . . no scoring . . . no sawing! Simply hold one of these new ampuls in your hands . . . bend it, and the stem snaps off! Presto, it's ready for use. Think of the convenience you can offer the users of your products.

The secret of this revolutionary

Kimble development—the result of nine years' work—is in the patented blue color band around the neck of the ampul. This color-break feature is the greatest improvement in ampuls since the development of Neutraglas containers. *Decide today to modernize your ampul package.*

KIMBLE GLASS TOLEDO 1, OHIO
Division of Owens-Illinois Glass Company

*Owens-Illinois Trade Mark

MAY 1952



169

**HIGH SPEED!
ACCURATE!
LOW COST!**

DRY PRODUCT PACKAGING

WHIZ-PACKER

PACKAGE
FILLING MACHINE
BENCH MODEL



Products like powders, nuts, crystals, candy, seeds, teas, coffee, spices, frozen foods, soup mixes, peanuts, beans, popcorn, etc., require accurate net weighing—and high speed filling.

Whether you use WHIZ-PACKER BENCH OR FLOOR MODELS, you can fill any size—any type package at a speed up to 104 a minute—with close tolerance accuracy.

**WHIZ-PACKER, NOT THE OPERATOR
SETS THE PACE**

**WHIZ-PACKER
FLOOR MODEL**

*Send product sample and package
for complete details and prices.*

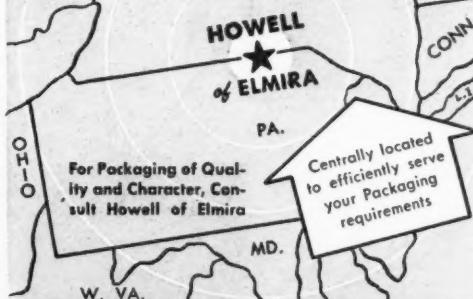


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338-01 Cortlandt St., Belleville 9, N. J.

EXCLUSIVE DISTRIBUTORS
EASTERN STATES AMSCO PACKAGING MACHINERY, INC., LONG ISLAND CITY, N. Y.
WESTERN STATES SUPERIOR PACKAGING MACHINERY, INC., OAKLAND, CALIFORNIA
MIDWESTERN & SOUTHERN STATES MILLER WRAPPING AND SEALING MACHINE CO., CHICAGO
CANADIAN EXPORT JOHN SALES COMPANY, TORONTO, CANADA
THE FRAZIER COMPANY, NEW YORK, N. Y.

**BOXES
LABELS
DISPLAYS**

SINCE 1883



F. M. HOWELL & CO.
79-95 Pennsylvania Ave., Elmira, N. Y.

"PERFECT EVERY TIME"

*printing on glass,
plastic, metal and wood*

Check the requirements
of your current package.
Will perfect, permanent,
colorful on-the-package
printing help it sell better?
You bet it will. Write to
Modern Decorating for de-
tails.

luxurious appearance •

permanent bonding •

wide color range •

**MODERN
DECORATING
COMPANY**

155-65 Oxford St.
Paterson, New Jersey
Phone: LAmber 6-1686 LO 4-1998

*Silk Screen and
Offset Printers on Plastic,
Glass, Wood and Metal*



Now... You can get Acetate's superior qualities in Barrier Wraps And Stay Competitive!



Newly developed Celanese* Acetate film formulae will enable manufacturers to meet and even exceed government specifications for greaseproof preservation packaging without high costs.

When complete greaseproofing of barrier wraps is required, specify an acetate film layer. Acetate provides grease resistance in excess of Government Specification JAN-B-121. Acetate offers protection against natural oils and greases as well as most of the new synthetic types such as MIL-G-3278 aircraft and instrument grease. It does this over a wide range of temperature, humidity and aging conditions.

Acetate conforms readily . . . imparts ease of handling when wrapping. Acetate combines with all materials: kraft, fabric, paper, metal foil, glass fiber.

Don't forego the advantages of acetate because of price. The newly developed Celanese formulae

will keep your wraps competitive—and your customers satisfied. Technical information is available on request. Write or call:

Celanese Corporation of America, Transparent Films Dept. 108-E, 180 Madison Avenue, New York 16, N.Y. In Canada, Canadian Cellulose Products, Ltd., Montreal and Toronto.

Celanese*
Acetate

TRANSPARENT FILMS

Plants and people

Stockholders of the **General Box Co.**, Des Plaines, Ill., recently elected **N. W. Embry** as chairman of the board, succeeding **E. E. Ames**, who will continue to serve as a director of the company. **J. A. Cragwall**, vice president and manager of the Kansas City division of the firm, has been



*N. W. Embry (l.) and
J. A. Cragwall*

elected president. **Roy E. Welch**, assistant division manager, was promoted to manager of the Kansas City Division. Mr. Embry's plans call for a partial retirement from management of the firm.

An open house marked the formal opening of General Box Co.'s new executive offices and laboratory at 1825 Miner St., Des Plaines. The new laboratory, which occupies over 10,000 sq. ft. of space, is divided into four separate sections: one contains testing equipment, another is used for the manufacture of sample boxes, the third contains a research operation and the fourth is devoted to the design and creation of boxes. Laboratory activities will continue under the direction of **N. A. Fowler**, vice president and director of sales and research:

J. D. Stimpson has joined the sales staff of the **Cleveland Lathe & Machine Co.**, Cleveland, Ohio, manufacturer of heat-sealing and packaging equipment.

Mr. Stimpson was formerly merchandising and packaging consultant to the self-service meat industry in the Pliofilm department of the Goodyear Tire & Rubber Co. In his new post, Mr. Stimpson will call on end users of heat-sealing and packaging equipment and work with jobbers and distributors of Clamco equipment throughout the United States and Canada.

Ernest M. Oswalt has been elected as a director of the **Lynch Corp.**, manufacturer of packaging machinery, Anderson, Ind. Mr. Oswalt, who has been associated with Lynch Corp. since it started manufacture of glass-forming machines, is chairman of the board of directors of the

Campana Corp. and president of the Du Page Lumber Co.

Lynch Corp.'s Southern district office has been opened at 1036 Peachtree St., Atlanta, Ga., under the management of **B. J. Scholl**. **R. W. Graf** will assist Mr. Scholl. The firm's new Midwestern district office at 506 S. Wabash Ave., Chicago, is under the management of **B. D. Berk**, with **F. G. Lenhart** as his assistant.

Kimberly-Clark Corp., Neenah, Wis., announces the appointment of **William W. Cross** as assistant general sales manager. General sales manager is **A. G. Sharp**.

Stone Container Corp., Chicago, has announced the formation of a special department to handle packaging problems related to Government contracts. **Irving Heftner** and **Al Blue** will serve as co-directors of the new department.



Grover J. Daly has joined **The Ottawa River Paper Co.**, Toledo, Ohio, as chief packaging engineer. Mr. Daly replaces **Pat Foy**, who is now a sales representative for the company with headquarters in Detroit. Mr. Daly was formerly a packaging engineer with Container Corp.

The Roto Bag Machine Corp., New York, announces the appointment of **James C. Hale & Co.** as its Western sales and service representative. The Hale company serves the entire Pacific Coast with an extensive line of packaging equipment and maintains its principal office at 282 Seventh St., San Francisco. **E. J. Cavanaugh** has been trained at the Roto Bag Machine factory to handle installations of the firm's equipment in that area.

Henry F. Wittel has joined the **Package Products Co., Inc.**, Charlotte, N. C., as director of production, research and development. Mr. Wittel has had over 17 years experience in the converter and allied fields, having been associated with the Standard Printing Co. and the Interchemical Printing Ink's Aniline Division.

The name of the **Nashua Gummed & Coated Paper Co.**, Nashua, N. H., has been shortened to **Nashua Corp.** The company feels that the products and services of the company have outgrown the value of a descriptive title and that the new name will be more convenient. Nashua makes various types of flexible

packaging materials and package sealing machines.

C. S. Stephens has been appointed manager of the **American Can Co.**'s non-food container sales division in New York. Mr. Stephens succeeds **T. F. Brennan**, recently named manager of the company's new packaging development division. **J. W. Wardell**, formerly manager of the firm's Kansas City district office, will take over Mr. Stephens' post in Chicago.

The Bemis Bro. Bag Co., St. Louis, Mo., has established a new Research and Development Department to coordinate and extend its present activities in package design and engineering. **H. V. Kindseth**, newly appointed supervisor of research and development, will direct the department, which is located in Minneapolis. The new department will be completely independent of the Bemis Packaging Service Department, which for several years has devoted itself to improving packing techniques and machinery.

H. W. Bull has been named to the newly created post of packaging engineer for the Midland Division of **The Dow Chemical Co.**, Midland, Mich. Mr. Bull will head a new program for the Midland plant designed to reduce packaging costs efficiently. Primary aims of the program are standardization and revision of presently used packages. Plans include the development of a uniform package surface design and the establishment of package specifications for various products manufactured and shipped from the Midland Division.



Philip Horn, specialist in designing point-of-purchase merchandising aids, will represent the firm at the New York office. Mr. Horn was formerly with Lutz & Sheinkman and David-Hansen.

The Robert Gair Co., Inc., New York, manufacturers of folding cartons, paperboard and shipping containers, announce



How to eliminate packaging nightmares

Sturdy, colorful H & D PREPAKS protect products and profits alike. They banish the costly nightmares of goods damaged in transit. They eliminate the need to repack for retail delivery.

This attractive PREPAK® stimulates sales at point-of-decision. Handsomely printed in brown and black on white linen-finish corrugated board. Product facts

are prominently featured to assist the sales personnel.

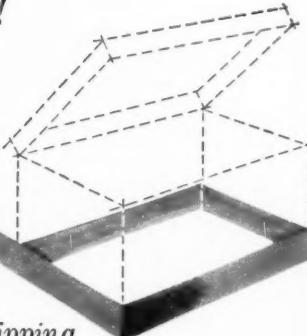
H & D can eliminate your packaging nightmares too. Practical merchandising packages provide protective strength, lightweight, easy packing, compact storage, dual use. Write for the 14-volume "Little Packaging Library." Hinde & Dauch, 5205 Decatur Street, Sandusky, Ohio.



Baltimore, Battle Creek, Mich., Bloomingdale, Ill., Buffalo, Chicago, Cincinnati, Cleveland, Columbus, Denver, Detroit, Fortified, Conn., Franklin, Mass., Gloucester City, N.J., Greenwich, Conn., Hoboken, Indianapolis, Jamestown, N.C., Kansas City, Kan., N.C., Minneapolis, Omaha, Phoenix, Md., Roanoke, Va., Richmond, Va., Spokane, Va., Rochester, Louisville, Colo., Worcester, Mass., St. Louis, Toledo, Waukesha, Mass.

REEVES specializes in tapes

*to solve
your box-binding
problems!*



- *For Glue Stripping Machines*
- *Holland Finished Cloths*
- *Dry Gummed Tapes*
- *Thermo-Plastic Tapes*

Reeves tapes combine extra-strength with thinness . . . are specially finished to prevent glue seepage and color change.

They're made by experts who know your problems and how to solve them. Each lot is tested on Reeves own stripping machine to insure you of smooth, trouble-free production. If you are hampered in production by tapes that don't perform right—call on Reeves.



For further information and a special sample kit of Reeves Box Tapes, write us on your company letterhead.

REEVES BROTHERS INC., W. Harris Thurston Division
54 Worth Street, New York 13, N. Y.

Plants and people

the following appointments: **Henry Rust** as division manager of Gair's plant at Bogota, N. J., where the firm operates both a paperboard mill and a domestic and weatherproof solid fibre box shop; **Herbert A. Downing** as division manager of Gair's Fort Niagara Corrugated Box Division at North Tonawanda, N. Y.; **Frank E. Newton**, division manager at Gair's Ohio Corrugated Box Division in Cleveland; **John D. Mullins**, sales manager at the Boston Corrugated Box Division, Cambridge, Mass.

More than 40 officers of the U. S. Army, Navy and Air Force taking the Naval Supply Corps School refresher course on packaging methods and materials handling at Bayonne, N. J., recently visited the Teterboro, N. J., and Piermont, N. Y. plants of the Gair company.

Art Johnson has been appointed sales engineer for the New Jersey Machine Corp., Hoboken, N. J., and will work out



*Art
Johnson
(left) and
Mal Smith*

of the Chicago office, covering the mid-west. Mr. Johnson will now be associated with **Mal Smith**, manager of the Chicago branch since 1950.

The election of **T. T. Miller** as vice president for marketing and **George W. Blackwood** as vice president and general sales manager has been announced by the **Dewey & Almy Chemical Co.**, Cambridge, Mass. Also announced by Dewey & Almy is the appointment of **Lee J. Cone** as manager of Midwestern sales in the Chicago office. Mr. Cone succeeds **A. J. Schneider**, transferred to Cambridge to take over the company's shoe products division. **W. M. Rand, Jr.**, succeeds Mr. Cone in Cambridge, where he will manage container product sales in the Eastern area.

At a recent dinner celebrating the 100th anniversary of **The Sorg Paper Co.**, Middletown, Ohio, every employee of the firm became a stockholder. The company's gift of shares of company stock to its employees was based upon length of service with the firm, one share for each

by Popular Demand!-

ARVEY® BRINGS YOU **LAMCOTE® MULTI-COLOR PRINTING**

On Plain or Laminated Cellophane, Acetate, Foil, Polyethylene,
Pliofilm, Saran, Glassine, and other Hard-to-Print Materials

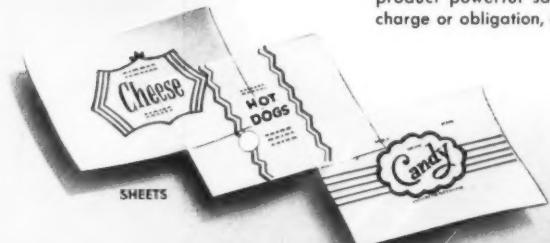
A brand new service

created in response to ever-increasing customer demand! ARVEY — long famous for sales-stimulating laminated "Showcase" packages — now brings to the field of printed transparent films the same successful "know-how" shown in creative planning and production of "buy-appeal" packaging! LAMCOTE Printing Service features multi-color printing by gravure or aniline process in continuous rolls. Our sheet and bag converting facilities are tailored to meet your specific requirements.

MANUFACTURERS and PACKAGE PRODUCERS
Submit your product samples to us! Expert designers and merchandising men will work out a custom-printed package to give your product powerful sales impact! (Without charge or obligation, of course).



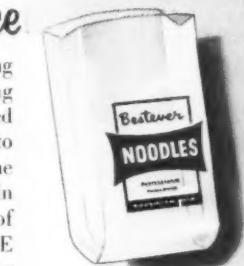
CONTINUOUS ROLLS



SHEETS



IMAGE OVERWRAPS



LAMCOTE PACKAGING DIVISION OF

ARVEY CORPORATION

SINCE 1905



3462 N. KIMBALL AVE., CHICAGO 18, ILLINOIS
PLANTS AT CHICAGO... JERSEY CITY

Handy Dispenser for Scrubbing Powder adds Sales Appeal to Nationally Famous Cleanser

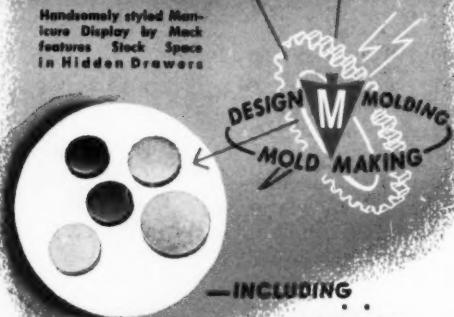


Beautifully Molded Powder Boxes and Rouge Cases add Sales Appeal to Cosmetics



MACK custom-molded components

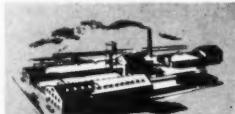
Handsome styled Manicure Display by Mack features Stock Space in Hidden Drawers



—INCLUDING

precision molded parts

FROM 3 COMPLETE PLANTS



WAYNE, NEW JERSEY



ARLINGTON, VERMONT



WATERLOO, P.Q., CAN.

Mack

**MOLDED
EXCELLENCE**

OVER 30 YEARS
OF MOLDING SERVICE
TO INDUSTRY

Are Your Ounce Packages Dressed Their Best?

Ask for a Brown packet

quotation, or send us a
small quantity of your

product with your
order for sample packeting.



**BROWN
BAG FILLING
MACHINE CO., INC.
FITCHBURG, MASS.**

Manufacturers of Packetting Machinery, Packets and Open End Envelopes.

Representative: Burnard C. York Packaging Machinery,
5807 West North Avenue, Chicago 39, Illinois

West Coast Representatives: Peter D. Bowley & Assoc.,
210 Mississippi Street, San Francisco, Calif.

MILITARY SPECIFICATION PACKAGING

BAGS & ROLLS

Moisture-Proof • Water-Proof
Vapor-Proof • Grease-Proof

We sell a complete line of cloth backed, paper backed and foil backed barrier materials to meet requirements of Army, Navy and Air Force packaging; also, gummed and pressure sensitive tapes, packing list envelopes and protectors.

AN

MIL-C-6056
UU-P-271a
100-14-A
19-8-13
MIL-B-131A
MIL-C-10547
MIL-E-6060
MIL-B-3149
JAN-P-100

JAN

JAN-P-101
JAN-P-115
JAN-P-128
JAN-P-131
JAN-P-140
JAN-P-658
AN-B-20
AN-C-67b
AN-E-1b
AN-T-12a

MIL

JAN-B-121
JAN-B-148
JAN-P-108
JAN-P-116
JAN-P-117
JAN-P-125
JAN-P-127
JAN-P-130
FS-100-NS

APPROVED CONVERTERS OF SPECIFICATION MATERIALS
Write, Wire or Phone Your Orders

**PAPER PRODUCTS
CHARLES E. KING & CO.
SHIPPING MATERIALS**

170 WEST CHICAGO AVE., CHICAGO 25, ILL. TELEPHONE MAYwood 1-0745

MODERN PACKAGING

Plants and people

three years of service. The gift represented \$60,000 in stocks and \$12,000 in cash, representing payment by the firm of the 20% tax required on such gifts. At the dinner, the Middletown Civic Assn. presented a resolution honoring the contribution of the company and its employees to the civic success of Middletown.

Plax Corp., Hartford, Conn., makers of squeezable bottles and other plastics products, have announced the appointment of **P. J. Murphy** as sales manager.



P. J.
Murphy
(left) and
C. N.
Sprankle

of blownware products and **C. N. Sprankle** as sales manager of extruded products. Both men will be located at the Hartford offices of the company.

C. Paul Fortner, formerly with DuPont, has been appointed assistant director of research for Plax.

The Western Lithograph Co., Los Angeles, has announced that **Elmer Dixon**, sales promotion director, now has complete responsibility of advertising sales for the Southern Division, an area from Fresno south to the border.

The Aldine Paper Co. has been appointed a franchised heat-seal paper distributor in the New York area by the **Nashua Corp.**, formerly the Nashua Gummmed & Coated Paper Co. **Guy Wheeler** of the Aldine company will handle promotion and sales of Nashua's heat-seal papers.

The Unger Paper Co., 211 W. 20th St., New York 11, has been formed by **Milton Unger**, who is the sole owner. The company will specialize in quality laminating of papers, paperboard, foils, fabrics, glassines and acetates in roll-to-roll or roll-to-sheet form. Latest design laminating and sheeting equipment has been installed to handle widths up to 53 in. Mr. Unger has been in the converting field since 1934.

Paul E. Roehrich and **Eugene J. Moore**, president and vice president, respectively, of the **Richford Corp.**, New York, are the Eastern sales representatives for the new firm of **Esco-Foster**, recent purchasers of **Theodore W. Foster & Bro. Co.**, Prov-

dence. R. I. Mr. Roehrich and Mr. Moore will handle the Esco-Foster lines of cosmetic packages as direct factory salesmen. Mr. Roehrich has also announced a change in policy of **Closures, Inc.**, of Waterbury, Conn. Formerly an exclusive supplier to the Richford Corp., this firm is now entering the field with its own line of fine brass and aluminum closures. Mr. Roehrich and Mr. Moore will also conduct the sales efforts for this firm. The Richford Corp., which is not connected with either Esco-Foster or Closures, Inc., will continue to serve the trade with its line of cosmetics packaging specialty items.

Thomas Virtue has been named superintendent at the Victory Mills plant of **United Board & Carton Corp.** Before joining United, Mr. Virtue was with the Pioneer Folding Box Co. and Container Corp. of America.

The National Container Corp., New York, continuing its expansion program, is opening a modern corrugated box plant in Rock Hill, S. C. This is the company's 12th such unit and additional box plants are planned for Memphis, Tenn., and Milwaukee, Wis. The Rock Hill plant will produce all types of corrugated and solid fibre boxes for the North and South Carolina, Virginia and Eastern Tennessee area. **Joseph W. Reynolds** has been appointed divisional manager of the plant. He will be assisted by **James A. Cobb**.



Union Bag & Paper Corp., New York, has announced the appointment of **G. W. Shelhammer** as Western sales manager of bag and paper products. Mr. Shelhammer, formerly Western district manager of multiwall bag sales, will now have general supervision of all bag and paper sales which originate in the Western territory.

Marathon Corp., Menasha, Wis., has launched the most extensive advertising campaign in its history, encompassing consumer and trade magazines and newspaper rotogravure sections and Sunday supplements. Marathon, supplier of protective food wrapping and packaging materials, is one of the few such companies whose operation is fully integrated, from the forest to the finished product. The 1952 campaign ads will be addressed to different segments of the food industry



complete service

From initial design — to completed labels and tags. We make our own dies and engravings — do our own embossing, stamping, printing and finishing. For distinctive packaging call Cameo today!

Labels and Seals

- MULTI-COLOR
- PAPER OR FOIL
- EMBOSSED & PRINTED
- HEAT SEAL
- PRESSURE SENSITIVE
- SPECIALTY SEALS
- STOCK LABELS
- Die Cut

Tags — Wraps Displays

- For ADVERTISING
- PROMOTION
- MARKING
- PRODUCTION



Canada: Cameo Crafts, Inc.
157 St Paul St. W., Montreal 1

NATIONAL PACK-TAINERS

COMPOSITE CANS WITH METAL ENDS

round
plain

square
decorated

National Pack-Tainers are the choice where low container costs must go hand in hand with attractive dependable packaging. Metal ends, various styles of metal closures and special protective barrier wall construction for problem products, adapt National Pack-tainers to your requirements. Known for fast, courteous service.



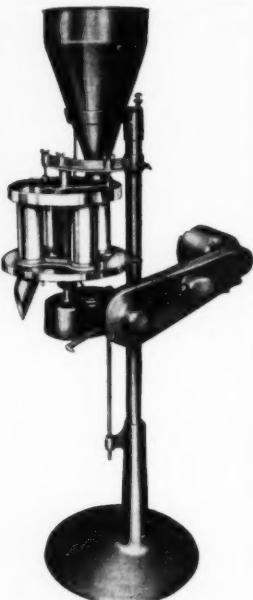
NATIONAL PACK-TAINER CORP.

34 Park Row, New York 7, N. Y.
BOSTON
10 High Street, Room 512, Liberty 2-1277

Plant and Warehouse: Brooklyn, N. Y.
WASHINGTON, D. C.
2017 S Street, N.W., DECatur 8000

FILLMASTER VIBRATORY FILLER

for guaranteed weight
accuracy on your dry
and semi-dry products



STUYVESANT ENGINEERING COMPANY

107 STUYVESANT AVENUE

LYNDHURST, NEW JERSEY

Plants
and people

and feature totally different products, all having similar layout and copy treatment to build a pattern clearly identifying them with Marathon. Consumer magazines to be covered include the *Ladies Home Journal*, *Woman's Day*, *Saturday Evening Post*, *Newsweek*, *Business Week* and *Time*.

The Traver Corp., Chicago, has announced the appointment of P. D. Rollins as its representative for the entire state of Florida. Mr. Rollins, whose offices are at 1143 Mary St., Jacksonville 7, Fla., will carry Traver's full line of printed and plain bags and printed sheets and rolls of cellophane, polyethylene, glassine, foil, Pliofilm, coated papers and Loxtite paperboard partitions or dividers.

The organization of Miller-Carron, Inc., with offices at 6432 Cass Ave., Detroit 2, Mich., has been announced. The new firm will provide consulting, advisory and other special services in the field of military, domestic and export commercial packaging. Scope of the new firm's operations will be nationwide. M. K. Miller, an executive of General Motors for the past 30 years, is president and general manager. I. Louis Carron, known throughout Detroit engineering circles, is vice president.

Allen Latham, Jr., has been elected as a vice president of Arthur D. Little, Inc., Cambridge, Mass., consulting research and engineering firm. Mr. Latham will also continue as technical director of the firm's Mechanical Division. Leroy F. Marek has been named to the board of directors and will have charge of technical operations of the company. Dr. Howard O. McMahon has been appointed to the newly created office of science director.

Continental Can Co., New York, has announced the appointment of J. N. Vincent as manager of the company's customer's plant layout department. John C. Baker has been named plant manager of Continental's Stock Yard plant in Chicago, replacing J. E. Perry, who has been transferred to the quality control department in New York.

The Kidder Press Co., Inc., has taken over the full responsibility of the A. E. Marconetti sales organization following the recent death of Mr. Marconetti. In Kidder's new sales organization, Edward J. Peal, chief engineer of Kidder Press,



In every field there are recognized leaders to whom quality of product is the supreme consideration.

To such leaders in the packaging and converting fields, Kidder presses and slitters have long constituted the standard by which other equipment is judged. In Kidder multi-color rotary presses for aniline, rotogravure, and letterpress, nothing is spared to achieve the known requirements for perfect printing. In slitting, Kidder's shear-cutting action results in clean, accurate, dustless rolls.

For information concerning the finest equipment to fill your converting needs, write:

KIDDER PRESS COMPANY, INC. • DOVER, NEW HAMPSHIRE

MAY 1952

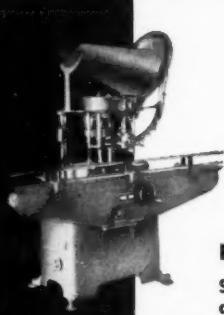
Kidder
PRESSES • SLITTERS

RESINA CAPPERS

A MODEL FOR EVERY PURPOSE . . .

A SPEED FOR EVERY NEED!

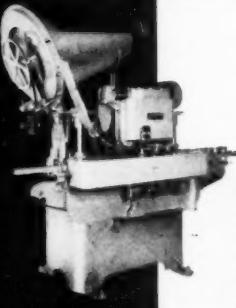
Capacity up
to 60 per
minute.



RESINA

Standard, single head,
automatic screw capper.

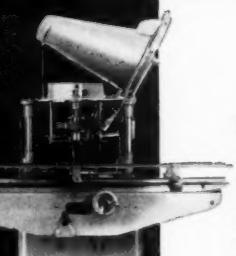
Flexible
Fast
Fully
Automatic



RESINA

High speed, straight line
screw capper. Rated for
speeds up to 300 per
minute depending on
size of container.

Capacity 20
to 60 per
minute



RESINA

Automatic innerseal ma-
chine for selecting and
applying standard inner-
seals to various types
and sizes of tin cans as
commonly used in the oil
industry.

Agents in principal cities through-
out the United States and Canada

Other models available.
Write for descriptive literature.

RESINA AUTOMATIC MACHINERY CO., INC.

BROOKLYN 31, N.Y.

Plants and people

will assist Robert Zuckerman, former assistant to Mr. Marconetti. All sales and service matters will be handled by Messrs. Peal and Zuckerman at the Kidder Press offices at 350 Fifth Ave., New York.

Harry H. Filler has been named manager of manufacturing in all plants of the Rheem Mfg. Co., New York, manufacturers of steel shipping containers. Mr. Filler has served in various foreign and domestic posts with Rheem for the past 18 years.

William S. Goodfellow has been appointed general sales manager for the Rheem firm. Mr. Goodfellow was formerly regional sales manager in Chicago.

Work on Rheem's new \$1,500,000 steel shipping-container plant under construction in Linden, N. J., is now entering its final stages, and installation of machinery and equipment has been started. The structure is scheduled to be ready for operation in the near future.

The Chicago office of the **Orchard Paper Co.** is now located in the Merchandise Mart Plaza, Room 1505-B, Chicago 54, Ill. Telephone number has been changed to Michigan 2-6340. The office is under the management of **Keith Campbell**.

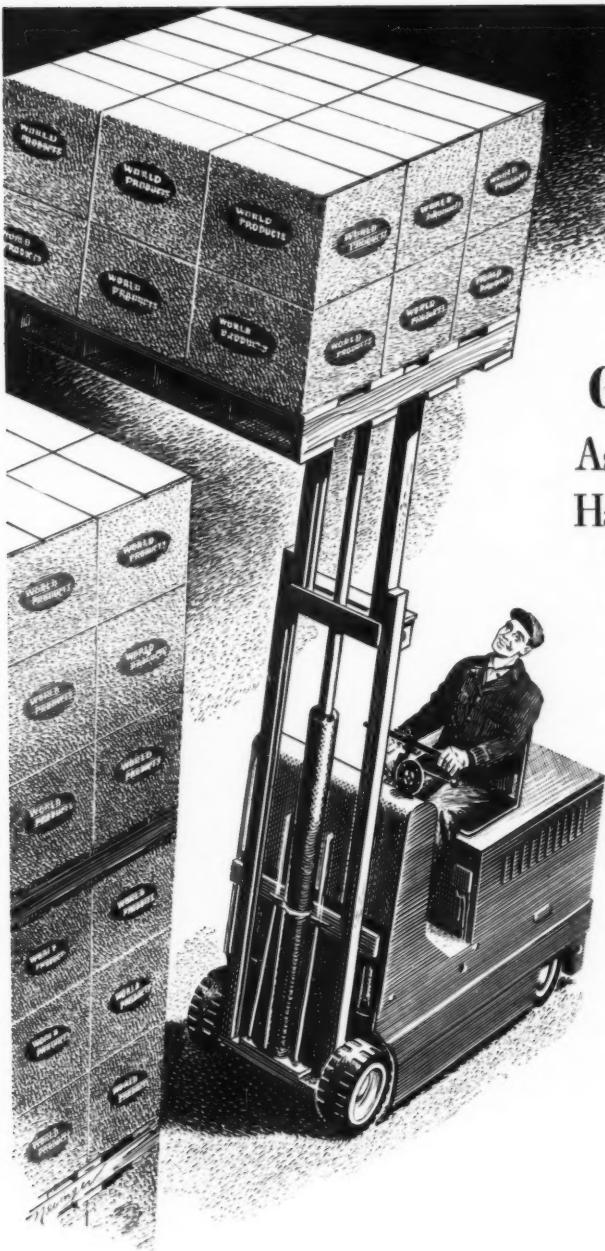
William J. Miller has been appointed special representative for industrial sales for **Mystik Adhesive Products**. His headquarters will be in the firm's executive offices in Chicago.

Jack Turner has been appointed assistant sales manager of the advertising specialty division, **Federal Tool Corp.**, Chicago. He will do field contact work with advertising specialty jobbers. **Edward Goetz** is now with the premium division of the firm.

Livingstone, Porter, Hicks, merchandising and advertising counsellors, Detroit, have moved to larger quarters in the Music Hall Bldg., 350 Madison Ave., Detroit, 26, Mich.

The transfer of **William A. Stewart** to **Monsanto Chemical Co.**'s packaging development department has been announced. Mr. Stewart, whose headquarters will be in St. Louis, has been with the company since 1947.

After 15 years as director of the packaging division of **E. W. Twitchell, Inc.**, **N. T. Gates** announces his severance from that organization and the formation of the **N. T. Gates Co.** with offices



GAYLORD BOXES

Assure Easier Warehouse Handling of Your Product

Built with exceedingly high compression strength, Gaylord Boxes eliminate "weaving" or "toppling" in storage and in transit.

That's just one more example of the economy of Gaylord controlled quality.

Your nearest Gaylord representative is ready to help you with your packaging problems. Get in touch with him.

*It's the unseen quality
that gives you the extra
margin of safety in*



GAYLORD CONTAINER CORPORATION

General Offices: SAINT LOUIS

CORRUGATED AND SOLID FIBRE BOXES • FOLDING CARTONS • KRAFT BAGS AND SACKS • KRAFT PAPER AND SPECIALTIES

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One-trip drum developed with aluminum foil!



Picture shows how multiple plies of fibreboard and aluminum foil fold at the edge to form liquid-tight construction before flexible sealing compound and metal lids are applied.

An inexpensive new shipping drum that requires no deposit or return has now been perfected through the ingenious use of aluminum foil.

Developed by Pacific Steelfibre Drums, Inc., of Alhambra, California, in cooperation with Kaiser Aluminum, this container is light in weight, yet strong enough for rugged service. It replaces heavy, expensive all-steel drums for many uses.

Secret of its construction: Continuously-wound layers of strong fibreboard laminated with aluminum foil.

Tested by a major refinery for a year, these new drums gave *less leakage than all-steel drums*. Stacked under loads up to 3000 lbs. for 30 days, filled with SAE10-10W oil at elevated temperatures of 158° F., no failures or leakage occurred.

What's more, the fibre-foil drum almost completely eliminates big expenses of accounting, handling, reconditioning.

Cost savings vary between 10% and 25% depending upon drum size and quantity. Light weight reduces shipping costs.

Extra safety for volatile substances is assured because aluminum is *non-sparking*. And because aluminum is *non-porous, moisture-vapor proof, corrosion resistant*, the fibre-foil drum is ideal for many liquids, like paints, foods, and for hygroscopic products which must be kept dry.

Consider the advantages of versatile aluminum foil for your customers. Call any office for complete information and for current availability. Sales offices in principal cities. Kaiser Aluminum & Chemical Sales, Inc., Oakland 12, California.

Kaiser Aluminum

Setting the pace . . . through quality and service

Plants and people

in the Drexel Bldg., Philadelphia 6, Pa. The new company consists of **Norman T. Gates**, **William F. Baker**, **Robert A. Cyliax** and **Walter W. Russell**. The entire sales organization and office staff that formerly composed the packaging division of Twitchell have joined the new firm. The company will serve as packaging designers, consultants and suppliers. Sales representative in Metropolitan New York will be **Fred Miller**, while **Bob Therrell** and **Rupe Aycock** will cover the South.

The **Dobekmum Co.**, Cleveland, Ohio, has announced the appointment of **Robert J. Christ** and **John C. Cahill** to the firm's executive committee. The committee di-



R. J. Christ
(left) and
J. C. Cahill

rects policies and coordinates sales, production and finance activities. Mr. Cahill began his career in the paper industry in 1926 with Crystal Tissue. Later he joined BenMont Paper, Inc., and became a member of the board of directors of that company. Mr. Christ is vice president and manager of the West Coast division of Dobekmum.

The **West Virginia Pulp & Paper Co.'s** \$1,500,000 improvement project at the Covington, Va., paper mill has been completed. The project covers the rebuilding of No. 6 and No. 7 paper machines, the remodeling and re-arrangement of the stock-preparation layout and the re-alignment and modernization of rewinding and roll-finishing operations serving these machines, as well as the construction of an addition to the machine room. The improvements are designed primarily to improve the quality and uniformity of the product, effect economies and maintain production flexibility. Since the war, the company has spent some \$30,000,000 in Covington and has allocated several millions more for future projects already authorized.

The appointment of three general managers to head tape divisions of **Minnesota Mining & Mfg. Co.**, St. Paul, Minn., has been announced: **C. C. Smith**, former general sales manager of the tape division, heads the cellophane tape division; **William E. Zimmerman** is general man-

ager of the industrial tapes division; **Bernard W. Lueck** has been named general manager of the masking tapes division. **Robert L. Westbee** continues to head the electrical and sound-recording tape division.

J. H. McNash, **Bruce H. Seabright** and **Walter H. McClure** have been re-elected directors of the **Hazel-Atlas Glass Co.**, Wheeling, W. Va.

E. F. Westwood has been appointed to head the Hazel-Atlas Pittsburgh District sales office.

Pope & Gray, Inc., makers of printing ink and ink products, have marked their 25th anniversary by moving into a new, modern plant located at Industrial West, Allwood, Clifton, N. J. Covering one acre on a four-acre plot, it is a one-story building containing offices, laboratory, ink department and varnish plant.

The **Lehmann Printing & Lithographing Co.**, San Francisco, is celebrating its 50th anniversary this year. The company, which specializes in all types of labels, grew from a small operation to its present three-story building containing more than 100,000 sq. ft. of space and now serves customers in every state of the union and in many foreign countries.

Eastern sales and service offices of the **Schmidt Lithograph Co.**, San Francisco, have been moved to new, larger quarters at 45th St. and Fifth Ave., New York. The office is under the management of **Charles W. Bowen**.

The appointment of **Harold A. Ruffead** as sales representative of **American Seal-Kap Corp. of Delaware** in the Indiana-Illinois-Wisconsin area has been announced. Mr. Ruffead was formerly with Golden Guernsey, Inc., and Vitex Laboratories.

Leon L. McGrady, manager of **Eastman Kodak Co.'s** cellulose product sales division, died on April 4 after a brief illness. He was 58 years of age. Mr. McGrady joined Eastman Kodak Co. in 1930. He was appointed manager of the cellulose products division in December, 1945. Mr. McGrady was widely known in the packaging field.

Howard Marshutz, supervisor of water-proof sales for **Bemis Bro. Bag Co.**, died on March 10 as a result of an automobile accident. Mr. Marshutz joined Bemis in 1916.

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... And We Can Prove It To You!
Highest Quality at Unmatched Production
Rates on Sheeting and Tubing.

Roto Bag
MACHINE CORP.
130 East 13th St., New York, N. Y.
MODEL #O-2

For your information

New officers of the **Point-Of-Purchase Advertising Institute**, elected at the organization's recent Annual Symposium and Exhibit, are: **William L. Stensgaard** of W. L. Stensgaard & Associates, Chicago, president; **Edward K. Whitmore** of Oberly & Newell, chairman of the board; **Walter J. Ash** of Consolidated Lithographing Co., first vice president; **S. Paul Boochever** of Gibraltar Corrugated Paper Co., second vice president; **Paul Godell** of Arvey Corp., Western vice president. Newly elected board members are: **Arthur L. Scaife** of General Electric Corp.; **F. W. Bristol** of Bristol-Myers Corp.; **George Brown** of Chicago Cardboard Co.; **Chester Thomson** of Einson-Freeman Co.; **William H. Walters** of U. S. Printing & Lithograph Co.; **Stanley Wessel** of Stanley Wessel & Co.; **Anthony J. Borre** of Magill-Weinheimer Co.

POPAI's 1953 Annual Symposium and Exhibit will be held at the Palmer House, Chicago, March 31, April 1-2.

The Spring Meeting of the Technical Committees of the **Packaging Institute**, held at Atlantic City last month, was attended by nearly twice the number present at the 1951 meeting. The luncheon was attended by 238 persons, with **Fritz Leinbach**, general chairman of the committees, presiding. Ten of the Technical Committees held brief meetings after the luncheon. The largest group was the Printed Packaging Materials Committee, with 77 representatives present. The Production Line Committee was attended by 41 members. Other committees that met at Atlantic City were: Equipment, Export Advisory, Films and Foils, Food, Glass Container, Paper, Shipping Container, Adhesion and Petroleum. Summaries of the previous year's work were presented by the four Division chairmen: **C. O. Kendall**, chairman of the Materials Division; **H. E. Nack**, chairman of the Product Division; **J. A. Warren**, chairman of the Production Division, and **M. J. Odell**, chairman of the General Division.

Charles O. Kendall of E. R. Squibb & Sons, Inc., has been appointed by the Technical Operations Committee as Division chairman of the Materials Division of the Institute, succeeding **Robert deS. Couch**, who is now PI president. **Miss Maurine Ponder** of Joseph E. Seagram & Sons, Inc., chairman of the Adhesion Committee, has been made a member of the Program Committee for the 14th Annual Forum and will head a seminar on Adhesion on Oct. 22nd. **A. Douglas Murphy** of Esso Standard Oil Co. was elected chairman of the Petroleum Committee to succeed **R. Chester Reed** of The

Texas Co. **C. H. Phillips** of Shell Oil Co. was elected vice chairman and secretary of the Petroleum Committee.

As an aid to the **Office of Defense Mobilization** in carrying out its objectives, the **American Society for Testing Materials** has been requested to develop methods of conserving scarce materials through the use of substitute materials or through more efficient use of materials. By formal contract these services will be rendered to **John R. Townsend** of the Bell Telephone Laboratories, recently appointed consultant to the Director of Defense Mobilization. To carry out this work, the Society has employed a staff engineer, **Howard S. Phelps**, who recently retired from the Philadelphia Electric Co.

The **F. B. Redington Co.**, makers of packaging machinery, have issued their first full-line catalog in half a century. It illustrates more than 35 types of automatic cartoning and wrapping machines and various special packaging attachments. The 32-page booklet gives full information on fields of use for various types and models, production speeds and special features. Illustrations also show the wide range of packages produced by the machines. Copies of the catalog may be had from the Redington company, 112-B S. Sangamon St., Chicago 7, Ill.

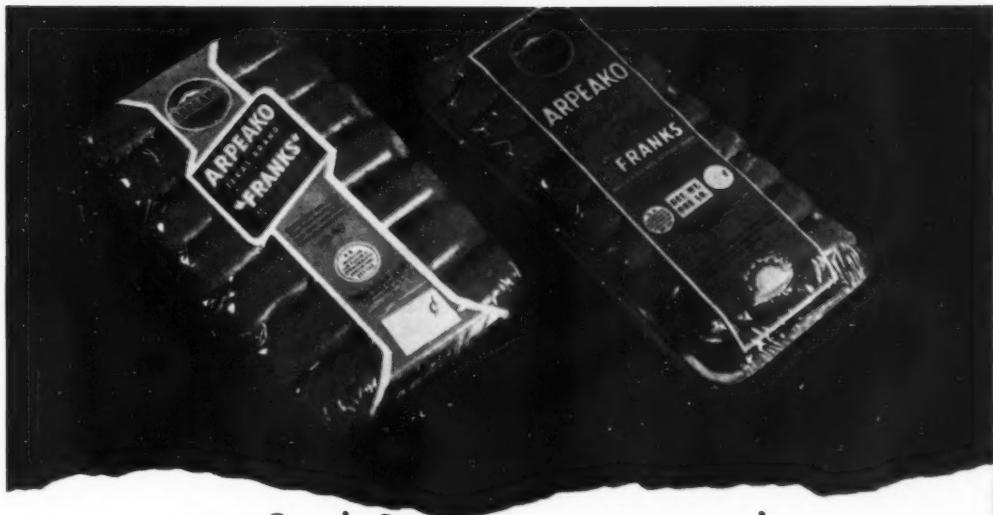
The **Wilkata Folding Box Co.**, Kearny, N. J., has issued an elaborate brochure to commemorate its 30th anniversary. The booklet has been designed as a progress report to show what has been accomplished by the firm since it was established in 1922 by William E. Pulis. Operations of the firm's various departments are illustrated and described.

Morehead Patterson, chairman of the board and president of the American Machine & Foundry Co., New York, has been re-elected a board member of the **National Industrial Conference Board**, a nonprofit institution to gather, test, explain and distribute facts essential to the establishment of management, labor, governmental and economic policies that accelerate industrial progress.

Over 750 illustrations of leading ornamental art of the past 500 years are presented in a large, beautifully designed volume, "Alphabets & Ornaments" by Ernest Lehner (The World Publishing Co., Cleveland, Ohio; \$10). The material for this book was selected to enable the reader to visualize in chronological order the origin and development of designs of

What's doing

- May 9-12—**National Barrel & Drum Assn.**, Cincinnati, Ohio.
- May 11-14—**National Paper Box Mfrs. Assn.**, 2nd Annual Set-Up Paper Box Competition and 34th Annual Convention, Drake Hotel, Chicago.
- May 11-15—**Super Market Institute**, 15th Annual Convention, Cleveland Public Auditorium, Cleveland, Ohio.
- May 12-14—**Toilet Goods Assn.**, 17th Annual Convention, Waldorf-Astoria, New York.
- May 18-23—**New York Stationery Show**, Hotel New Yorker, New York.
- May 19-21—**Glass Container Mfrs. Institute**, Greenbrier, White Sulphur Springs, W. Va.
- May 22-23—**Folding Paper Box Assn. of America and Technical Assn. of the Pulp & Paper Industry**, Folding Carton Forum, Hotel Carter, Cleveland, Ohio.
- May 22-24—**American Society for Quality Control**, 6th Annual Convention, Syracuse, N.Y.
- May 25-28—**National Assn. of Purchasing Agents**, Atlantic City, N. J.
- June 1-6—**National Confectioners Assn.**, Conrad Hilton, Chicago.
- June 6-8—**Paper & Twine Assn.**, Genoa City, Wis.
- June 8-11—**Institute of Food Technologists**, Grand Rapids, Mich.
- June 10-12—**Produce Prepackaging Assn.**, Annual Convention, Neil House, Columbus, Ohio.
- June 15-20—**National Assn. of Display Industries**, New York.
- June 16-19—**Canadian Paper Box Mfrs. Assn.**, Montebello, Quebec.
- June 19-20—**American Management Assn.** (General Management), Waldorf-Astoria, N. Y.
- June 23-25—**Forest Products Research Society**, 6th annual meeting, Milwaukee, Wis.
- June 23-27—**American Society for Testing Materials**, 50th anniversary meeting, New Yorker and Statler Hotels, New York.



the frankfurter goes to market

S in Saran film

packaging that displays and sells!

A new *first* in saran film packaging! And here saran film brings its superior packaging qualities to processed meats . . . keeping them fresh, flavorful and taste-tempting in self-service refrigerator counters.

To take advantage of the toughness, flexibility and sparkling clarity of saran film for their meat packaging, the Tobin Packing Company of Rochester, New York, developed a machine which makes possible saran film packages that breathe. They have also utilized the conformability of saran film to give a tight, smart appearance that withstands customer handling.

Give your product the sales benefits of saran film protection and eye appeal. Dow Plastics Sales Department will be glad to work with you on your specific packaging problems.

Write Dow today for further information.

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Plastics Department • Packaging Section PL 185

Midland, Michigan

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The Dow Chemical Company • Plastics Department, PL 185
Midland, Michigan

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Company _____

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City _____ State _____

- Cheese
- Nuts
- Dried Fruit
- Meats
- Candy
- Liquid Pack
- Other (____)



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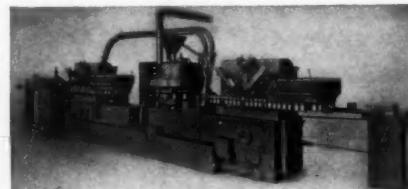
Imagine an extremely low cost rigid container . . . with outstanding protective qualities and wide utility . . . that automatically is formed from pre-cut blanks, filled and sealed . . . at up to 120 per minute! That's Eco-PAC!

The entire creation and filling of ECO-PACs is accomplished by efficient high-speed machinery, designed and built by Jagenberg-Werke A.G., Dusseldorf (West Zone), Germany. Sixty filled and sealed Eco-Pacs per minute are produced on the Eco-MAT. And the Eco-MAT DUPLEX produces 120 per minute.

Blanks for Eco-Pacs can be made from a wide variety of materials ranging from light grade board to low MVTR laminations of paper and foil. Without modification, regular folding box equipment can make them inexpensively.

Further details about ECO-PAKS and the machines which handle them will be furnished by the exclusive U. S. distributor, Alfred Hofmann & Co. Showroom and Offices: 635 59th Street, West New York, N. J.

The ECO-MAT DUPLEX, a complete packaging plant.



ALFRED HOFMANN & CO.

Sole U.S. Sales and Service Agents for Jagenberg Labelling and Packaging Machines

For your information

main groups of applied ornaments and decorations during the last 500 years. Artists, designers, printers and craftsmen will find the volume interesting and of practical value.

C. L. Snavely was elected president of the National Assn. of Frozen Food Packers at the association's recent annual meeting. Mr. Snavely is with the Consumers Packing Co. of Lancaster, Pa. M. K. Spiegel of Spiegel Farms, Inc., was elected first vice president and G. O. Bailey of General Foods' Birds Eye Division was elected second vice president.

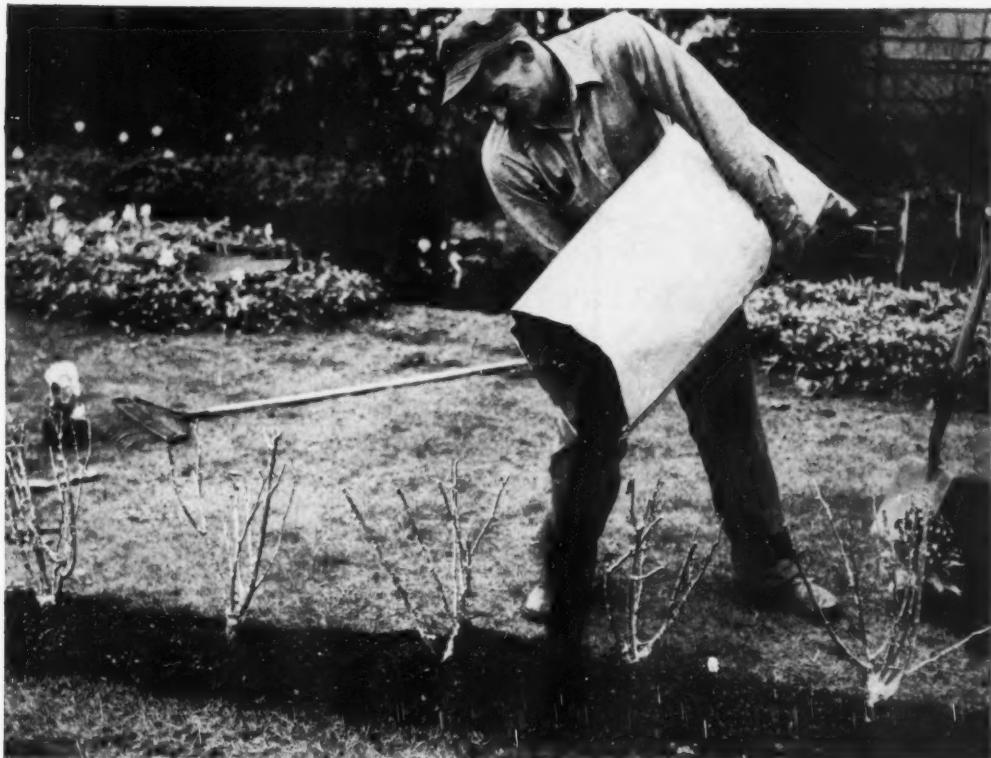
The association has announced a program to assemble data on nutritional values of frozen foods. As the program proceeds, data available will be analyzed and results widely disseminated.

The 1953 National Frozen Foods Convention will be held in Chicago, at the Conrad Hilton Hotel, next March.

Oneida Paper Products, Inc., Clifton, N. J., converters of bags and flexible packaging materials, have announced the availability of an automatic bag selector designed to take the guesswork out of the pre-packaging of fresh fruit and produce. By a simple twist of its dial, this "Flav-O-Pak Selector" is said to de-



termine accurately the correct bag size and grade of film to be used for pre-packaging various fresh fruit and vegetable products. It also shows the recommended storage temperature, indicates methods of sealing bags and films and suggests handling procedures for cellophane stock. The Selector is being distributed by Oneida Paper Products as an



Lining of Du Pont ALATHON* keeps peat moss and humus from eating through paper bags

*Liner of "Alathon"
preserves, strengthens package...
allows longer storage periods*

Packagers of peat moss and humus had two tough problems. Ordinary cartons, paper bags and fabric bags couldn't retain the moisture in these soil-conditioning products. They got wet and broke easily. What's more, when these containers were stored for even short periods of time, micro-organisms in the peat moss and humus ate through them, ruining the packages completely.

But when multi-wall bags with a coated lining of Du Pont "Alathon" polythene resin were tried, both problems were solved. "Alathon" resists the attack of the micro-organisms, yet does not affect the peat moss or humus in any way. The extremely low vapor transmission of "Alathon"

protects the contents by keeping air out and moisture sealed in . . . also prevents moisture from weakening the bag. And drop-breakage tests showed that bags lined with "Alathon" were stronger than all other lined bags tested.

"Alathon" has many other packaging advantages. It is highly resistant to alkalies and acids . . . does not stiffen or crack in temperatures as low as -70°F. Blended with wax, "Alathon" produces a tough, glossy coating for bread and other food wraps. "Alathon" can also be formed into many types of closures (screw-on, snap-on, plug-type, etc.) and flexible bottles for a variety of products.

Investigate the many advantages of "Alathon" for your packaging needs. We will be glad to assist you on development work. For further

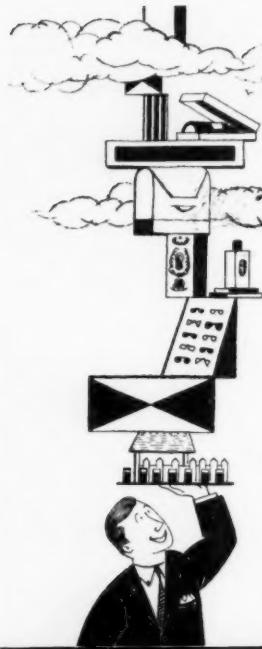
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Chaspec's fancy-free packages and displays have been proved in use by leading merchandisers throughout the country. For unusual eye-appeal with unusual materials, call The CHASPEC Manufacturing Company, Greenwich, Conn. Fine Packages and Displays . . . Since 1920

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For the aniline printer with a quality standard...

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For all 3 services or any one...use MOSSTYPE with confidence...for MOSSTYPE is the only fully integrated company in the country devoted exclusively to rubber plate production.

WORLD'S BEST SOURCE for...

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For your
information

aid to the simplification, standardization and development of produce pre-packaging procedures. One side of the selector is devoted to fresh vegetables, the other side to fresh fruit. It points the way to the pre-packaging of 73 different fresh fruits and vegetables. Oncida now has a complete line of "Flav-O-Pak" bags.

Robert G. Neubauer, Bridgeport, Conn., was the featured speaker at the recent annual spring meeting of the Northeast Regional Section of the Institute of Food Technologists at the University of Massachusetts. He gave an illustrated talk on "Package Design—Silent Salesman."

A thorough explanation of the Dudley can-unscrambling system is given in a new folder just issued by the **Dudley Machinery Corp.** Photographs and specifications, as well as descriptive text, point out the advantages of the system, which is said to give gentle handling at speeds of 750 cans per minute. Copies of the folder may be obtained from Dudley Machinery Corp., Mountain View, Calif.

"Successful Prize Contests" by Lester M. Cone, Jr., and Zenn Kaufman (Prentice-Hall, Inc., New York) gives a complete and practical guide to the planning and carrying out of promotional contests. The appendix presents 44 complete case histories of outstandingly successful contests that are a source of stimulating ideas and guidance. Mr. Cone is merchandising account executive with McCann-Erickson, Inc., and Mr. Kaufman is merchandising director of Philip Morris & Co.

A new 28-page "Style Guide" detailing construction designs for folding cartons has been issued by **Robert Gair Co., Inc.**, manufacturers of folding cartons, paper-board and shipping containers. Included is information on use of machine-filled and machine-formed cartons and a check list of points to consider in planning packaging. Copies may be had from the Gair company, 155 E. 44th St., New York.

The **Acme Steel Co.**, Chicago, has presented \$5,000 to Wayne University, Detroit, towards the establishment of a Materials Management Center. The contribution marked the launching of a \$375,000 fund-raising campaign at the national level. Funds will provide the means to set up a five-year development program. The center will operate as a division of Wayne University's School of Business Administration.

**LOWER
initial investment
LOWER
operating cost**

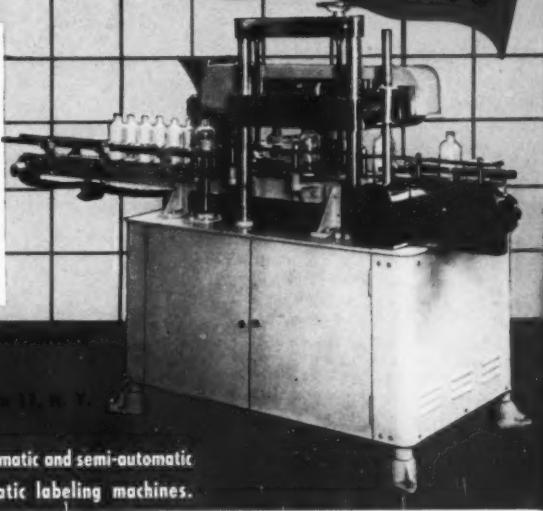
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fully automatic

labeling machines

Here is the first **LOW COST
CONTINUOUS MOTION Labeler**
that provides greater labeling production with
perfect registration. No operators required and
its simplicity of design permits unskilled help
to service it when necessary.

Changeover time at absolute minimum. Handles containers from fractional ounce to gallon — label sizes from "postage stamp" to 5" x 6". Production capacities from 20 to 150 per minute. Models for front or front and back labeling. Send for literature.



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Manufacturers of a complete line of fully automatic and semi-automatic liquid filling equipment and fully automatic labeling machines.

Real
Sales
Boosters!

*Watch your
sales climb*

on products packaged
in CELLOPHANE AND PLASTIC

The sales potential of these cellophane and plastic Christmas Stockings is terrific. Easy to package . . . light in weight . . . so economical. Ideal for packaging candies, lollipops, nuts, cookies, toys, novelties. Send us samples of your products—we'll give you our ideas . . . and prices. No obligation.

Christmas Stockings
6" to 60"

. . . clear . . . colored . . . printed

Write for illustrated literature showing
novelty packaging for every season.



STAR BAND COMPANY, INC., PORTSMOUTH, VA.

The South's Largest Creators of Plastic and Cellophane Novelties

MAY 1952



Makes
ROUND BOTTLES, JARS,
CANS, CONTAINERS
Get in Line!

**Styl-O-Matic
ROTARY
UNSCRAMBLING
TABLE**

• Cartons of bottles, jars, cans or containers are inverted on the tilt top table and their contents pushed onto the revolving disc. Units are automatically regimented and despatched in single file to the conveyor.

LOWERS HANDLING COSTS — ACCELERATES PRODUCTION

• Conveyor carries units to other operations such as filling, capping, labelling, etc. Handles up to 100 units per minute depending upon diameter.

MAIL THIS COUPON FOR FULL DETAILS



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Please send particulars on the Styl-O-Matic
Rotary Unscrambling Table.

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Washington review

The maximum impact of actual defense lies ahead and should help prevent any trend toward a recession, according to a statement by Secretary of Commerce Charles Sawyer.

Defense expenditures from present and recommended 1953 appropriations are expected to total \$150 billion. New plant and equipment spending by private business is scheduled at \$24 billion this year. Mr. Sawyer, citing a survey recently made by the Office of Business Economics and the Securities Exchange Commission, notes that manufacturers anticipate sales 5% higher than last year.

Meanwhile, a state of comparative, though delicate, stability has been achieved. Wholesale prices, which advanced 22% between December, 1949, and March, 1951, were running at 16% above the 1949 base last month. Consumer prices are about 12% above the late 1949 level. The cost of living index has receded slightly.

These favorable turns have occurred at an exceedingly high level of business activity. The gross national product last year was \$328 billion, an increase of 16% over 1950. The real gross national product increased 8% over 1950. Personal income last year was \$251 billion, an increase of 12% over 1950. The gross national product during the first quarter of this year advanced to an annual \$339 billion rate. Personal income was up \$1 billion in the first quarter as compared with the last quarter of 1951.

Anticipating continued gradual easing in the materials situation, Mr. Sawyer believes the general need for price and wage controls will lessen. Decontrol of steel could come early in 1953. The decontrol processes will probably back out the way they came in so that an unexpected emergency will not catch the country off guard.

Expansion goals

About 9 million tons of new steel capacity are expected this year. This amount added to the current 109-million-ton capacity will nearly achieve the 120-million-ton goal set for 1953.

Capacity of primary aluminum is expected to increase 415,000 short tons. During 1953 another 197,000 tons is planned and will bring total capacity to 1.5 million tons. Primary aluminum production this year is scheduled to be slightly above 1 million tons, in comparison with the 836,000 tons which were produced last year.

A 12% increase over 1951 production of chemicals is under way. The greatest

emphasis is on new capacity for such basic materials as chlorine, ammonia, benzene and phenol.

As a result of progress in meeting material expansion goals, plus softer civilian and military demands, third-quarter allotments of most critical materials will be increased. By year's end, non-military allotments of steel and aluminum, for example, will probably total nearly as much as was allotted last year.

Hardship standards eased

Beginning July 1, if your business is small and if your third-quarter allotments of controlled materials are insufficient to maintain minimum production and supervisory staff, you will find supplemental allotments easier to obtain. Previously, a small firm had to be faced with failure or prolonged shutdown.

Applications for extra metals should be filed with the appropriate field office of the Commerce Dept., or with the NPA industry division having jurisdiction over the applicant.

Metal strapping

The recent withdrawal of steel strapping order M-59 will give welcome relief to small users. Of an estimated 100,000 U. S. consumers of strapping, 80,000 use only 20% of the amount produced, it is reported.

In 1951 the strapping industry used approximately 400,000 tons of carbon steel.

Order M-59, now revoked, listed 14 acceptable uses of metal strapping and limited the amount of inventories to a 45-day supply.

Strapping, however, is still subject to the inventory limitations specified in NPA Regulation 1.

Collapsible tubes

Removal of all restrictions on the use of aluminum, provided for by recent amendment of the collapsible tube order, M-27, will enable tube manufacturers to derive immediate benefits from any increase that may be made in CMP aluminum allotments.

Previously, the order automatically limited use of aluminum to 90% of base-period consumption. This amount was further reduced by CMP restrictions.

The first and second quarter allocations of aluminum to the industry were approximately 1,700,000 lbs. for each quarter. The third-quarter determination is approximately the same figure. This quar-

terly usage is less than one fourth of 1% of total quarterly usage of the 710,000,000 lbs. of aluminum used in all civilian industries.

Removal of the 90% restriction will require not more than an additional 10%, or a total of 1,870,000 lbs. a quarter.

The limitations of M-27 on the use of tin remain in effect. Inventories of collapsible tubes will continue to be limited by NPA Regulation 1.

Converted aluminum foil

Under amended order M-67, covering converted aluminum foil, provision is made for a high level and a low level of filling orders. A control period for the order is based on the six months prior to Dec. 31, 1950.

The amendment prohibits a manufacturer from exceeding his low level base for any product class until he has provided for filling all orders in the next higher class.

Product classifications which are listed in the amended order are: (1) antibiotics; (2) hygroscopic drugs, medical supplies, etc.; (3) locker-plant items; (4) bakery goods; and (5) household cartons, gifts, etc.

Procurement manual

A revised edition of the Government Procurement Manual has been issued by the Commerce Dept. The manual, covering the procurement activities of all major Federal military and civilian agencies, lists 5,000 items and classes of items bought by the Government. It contains a military-agency and a civilian-agency index plus a listing of the locations of the appropriate procurement offices.

The manual is on file in regional and district offices of the Department of Commerce. It will be especially helpful to small firms interested in doing business with the Government.

Tin

Recent revision of tin order M-8 requires small users to certify that receipt of pig tin shipments will not put them in violation of inventory and usage regulations.

Canning Machinery

NPA is considering a revision of CMP Regulation 2, which, if put into effect, will offer inventory relief to canning-machinery manufacturers. Industry representatives say inventory lead times are insufficient for meeting delivery dates and also for complying with CMP rules.



Duraglas stock-mold bottle No. A-445 can help you gain brand recognition at the point of sale.



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U. S. patents digest

This digest includes each month the more important patents of interest to those who are concerned with packaging materials. Copies of patents are available from the U. S. Patent Office, Washington, at 25 cents each in currency, money order or certified check; postage stamps are not accepted.

Edited by H. A. Levey

Method and Means For Packaging. T. R. O'Malley (to American Viscose Corp., Wilmington, Del.). U.S. 2,586,078, Feb. 19. Packaging means comprising an integral, unitary, water-permeable paper-like sheet material in cylindrical, tubular form having overlapping folded portions of the sheet material extending longitudinally and spaced apart circumferentially by unfolded portions of the sheet material and with the overlapping portions secured together by a potentially adhesive material.

Bobby-Pin Display Card. R. K. Weaver and L. E. Thatcher (to Gaylord Products, Inc., Chicago, Ill.). U.S. 2,586,192, Feb. 19. In a bobby-pin package, a sheet of cardboard folded intermediate its ends to provide two overlying sections of different lengths, the short section having a notch formed in its free edge and an aperture in spaced alignment with said notch, aperture having a greater length than notch, with a group of bobby pins mounted astride said short section abutting side by side.

Paperboard Box Cover Lock. K. C. Ferguson (to Inland Container Corp., Indianapolis, Ind.). U.S. 2,586,156, Feb. 19. In a paperboard box having a bottom and opposed end and side walls, end walls each having a hand hole, each end wall being folded upon itself at its upper end to form a pocket disposed transversely, said pocket being equipped with a reinforcing member of size and shape to fit snugly in said pocket.

Machine For Delivering Articles Serially. J. B. Wilson (to Basca Mfg. Co., Inc., Indianapolis, Ind.). U.S. 2,586,281, Feb. 19. A cylinder, a piston mounted for reciprocation in cylinder, stem means associated with piston, a transfer device for moving articles to a station and a magazine containing stacked elements to be associated serially with articles.

Foldable Cardboard Bottle Carrier. E. N. Castle, South Orange, N.J. U.S. 2,586,301, Feb. 19. A carrier comprising a bottom, side walls united with opposite side edges of bottom and having end portions free from the bottom and extending longitudinally therefrom and bent towards each other across ends of bottom, meeting midway the width of bottom and forming end walls.

Tube Sectioning Machine. M. E. Gazette (to Hercules Container Corp., Boston, Mass.). U.S. 2,586,424, Feb. 19. In a tube-sectioning machine where there is a tube hopper, means for removing tubes singly therefrom to mandrel-receiving position, tube cutting means and means for stripping cut section from the mandrel.

Bottle Closure. W. Satz, Los Angeles, Calif. U.S. 2,586,440, Feb. 19. A closure for a receptacle having a beaded neck, said closure comprising an elongated hollow body portion extended to provide a firm hand grip and open at one end by a boring, the wall of which defines stepped sections.

Packaging Machine. J. F. Stalter (to Wingfoot Corp., Akron, Ohio). U.S. 2,586,445, Feb. 19. In a wrapping machine, two continuous sponge-rubber belts of same width mounted on parallel axes with a parallel stretch of one in pressure contact with the other so as to exert resilient pressure on objects and wrapping material placed between them.

Method Of Making Carry Bags. L. E. Camo (to Equitable Paper Bag Co., Inc., Long Island City, N.Y.). U.S. 2,586,514, Feb. 19. A method of making carry bags comprising the steps of forming transverse lines of weakness in a web at bag-length intervals, applying patches adhesively to web with the patches spanning lines but adhesively secured only on one side thereof, then tubing the web and tensioning the resulting tube at lines to separate tube into bag lengths.

Device For Setting Up Collapsible Cellular Cartons. E. H. Mobley (to Bloomer Bros. Co., Newark, N.Y.). U.S. 2,586,551, Feb. 19. A device for setting up collapsible cellular cartons of the type having front and rear walls with longitudinal partition

and transverse partitions, device comprising an elongated base having thereon a group of two or more consecutive, upwardly projecting, wire loops spaced longitudinally thereon and adapted to engage the partitions of one of said groups longitudinal slideways on base.

Sacking and Weighing Machine. P. L. Newbold, Cedar Rapids, Iowa. U.S. 2,586,557, Feb. 19. In a sacking and weighing machine the combination of a frame, a hopper pivotally connected to the frame, said hopper being constructed in a manner so chutes with openings at their forward extremities are formed.

Heat-Sealed Wrapping Machine and Method Of Wrapping. J. P. Truscott (to Wingfoot Corp., Akron, Ohio). U.S. 2,586,580, Feb. 19. In a wrapping machine the combination with means for feeding wrapping material to a wrapping position, means for wrapping the material about an object and an element for heating wrapping after article is wrapped.

Plastic Container Closure. J. A. Benner and J. M. Sharf (to Armstrong Cork Co., Lancaster, Pa.). U.S. 2,586,775, Feb. 26. A container having applied thereto a closure composed of a polymerized ethylene and having a top portion carrying an annular recess so positioned that the zone of minimum thickness of top is substantially above the sealing surface of container.

Labeling Machine. R. J. Newman and D. S. Friend, London, England. U.S. 2,586,983, Feb. 26. A machine for applying labels to cylindrical objects comprising an inclined chute element down which the objects roll gravitationally, a reciprocable rest adapted to receive only a single one of said objects.

Vacuum-Type Dust-Collector Apparatus For Filling Containers With Commuted Material. J. Balla, Jr. (Allen B. Wirsley Co., Chicago, Ill.). U.S. 2,587,089, Feb. 26. A filler head for feeding commuted material into a container comprising a housing having a generally funnel-shaped opening extending therethrough, funnel-shaped spout concentric with opening nested therein.

Apparatus For Setting Up Box Blanks. D. Levkoff, Great Neck, N.Y. U.S. 2,587,050, Feb. 26. Apparatus for unfolding blanks of sheet material having parts to form the sides and ends of a box, comprising a hopper and means for delivering blanks successively from hopper.

Container Filling and Capping Machine. A. E. Lindstrom (to United Metal Seal Co., Dorchester, Mass.). U.S. 2,587,180, Feb. 26. In a capper mechanism for flexible-walled container bodies and closure caps, means for supporting a body with an open side at the top and in position to receive a cap and means to engage the cap in fixed position to the container body.

Resilient Cap and Container Closed Thereby. C. J. Jesnig (to Package Devices, Inc., Philadelphia, Pa.). U.S. 2,587,327, Feb. 26. In a container, a vessel having a neck provided with an exterior endless annular neck ring extending beyond neck and a polyethylene cap having an end portion closing the otherwise open end of the neck and sealing against the end of the neck.

Display Container. W. J. Tyrseck (to Robertson Paper Box Co., Inc., Montville, Conn.). U.S. 2,586,886, Feb. 26. A container comprising a series of connected panels folded continuously in one direction and including panels forming exterior walls and a panel forming a partition connecting two opposite walls so as to divide the container into two compartments.

Machine For Packing Bottles With Relatively Small Objects. R. Althoff, Sommerville, N.J. U.S. 2,587,584, Mar. 4. A bottle packer comprising means for delivering an object to be packed at a fixed point in space, means for holding a bottle surrounding said point and means for turning a bottle so held by means of solenoid controlled arrestors.

Compartment Box Partition. I. A. Deline, Denver, Colo. U.S. 2,587,706, Feb. 26. A partition member for boxes and packages comprising: a flat cardboard sheet; a plurality of lateral partitions cut from said sheet at one side and folded upwardly at right angles to sheet along the other side in spaced-apart, parallel relation along parallel scored lines.

Compartmented Container Or Tray. A. Holder and T. Niedzwiecki (to The Meriam Mfg. Co., Durham, Conn.). U.S. 2,587,726, Mar. 4. A compartmented container including in

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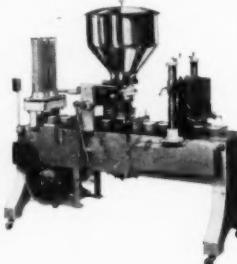
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U.S. patents digest

combination: a container body having a bottom wall and a pair of spaced-apart lateral walls; a concave-convex bottom member formed of resilient sheet material, bottom member having oppositely disposed upper edges, each of which is provided with a guard flange extending downwardly throughout the length of upper edge and hooked over the upper edges of the corresponding lateral wall of container body.

Preservation Of Ether, E. Mallinckrodt, Jr., and A. E. Ruehle (to Mallinckrodt Chemical Works, St. Louis, Mo.). U.S. 2,587,744, Mar. 4. A container for ether comprising a container member and a coating on the interior of container member, said coating comprising cupric oxide and a tin oxide.

Cap Closure, C. M. Koster (to Breda, Inc., San Francisco, Calif.). U.S. 2,587,737, Mar. 4. A closure for containers comprising an outer cap having a depending cylindrical flange, an inner cap concentrically arranged in spaced relation to outer member and mounted for relative rotative movement therewith.

Container Closure, C. M. Koster (to Breda, Inc., San Francisco, Calif.). U.S. 2,587,738, Mar. 4. A closure member for containers having outer cap with depending cylindrical flange portion and an inner member concentric therewith.

Bottle Carrier, E. L. Arneson (to Morris Paper Mills, Chicago, Ill.). U.S. 2,587,808, Mar. 4. An article carrier comprising pairs of opposed, flexibly connected side and end walls and a bottom, a central panel paralleling and located in a plane between side walls and flexibly connected at its ends to midpoints of end walls, central panel comprising a pair of sections disposed in parallel, multi-ply relation.

Molded Pulp Egg Carton, F. H. Sherman (to Shellmar Products Corp., Chicago, Ill.). U.S. 2,587,909, Mar. 4. A molded carton, comprising a bottom section having spaced upstanding walls intermediate the ends thereof dividing the carton into adjacent cells, bottom having a tab-receiving opening between cells.

Bottle Loader, E. L. Arneson (to Morris Paper Mills, Chicago, Ill.). U.S. 2,587,953, Mar. 4. A bottle-loading mechanism comprising a base, a carton-supporting platform positioned on base, a bottle conveyor positioned on base and having its upper run along the side of and above platform, a star wheel positioned between conveyor and platform to move successive bottles from upper run of conveyor.

Lipstick Holder, H. P. Manville (to The Risdon Mfg. Co., Naugatuck, Conn.). U.S. 2,588,024, Mar. 4. A stick holder, having an elevator, an exterior shell provided with an expanded lower portion, an inner shell including a base piece entirely contained within exterior shell, one of shells having a spiral slot and the other having a longitudinal slot.

Shipping Case For Fragile Articles, J. R. Grant, Chicago, Ill. U.S. 2,588,232, Mar. 4. A shipping case for fragile articles comprising integral bottom and side-wall members, flanges at both ends, a pair of liner members, liner members being disposed end to end, flanges on liners abutting together to form a vertical post alongside each side-wall member.

Carton, W. P. Frankensteiner, Cincinnati, Ohio. U.S. 2,588,377, March 11. In a carton formed from a single blank comprising a bottom panel and a cover of substantially the same area as the bottom panel, a back wall, outer wall member hingedly connected at opposite ends between the bottom panel and cover, and front wall hingedly connected to bottom panel.

Package and Enclosed Tray Thereof, T. S. Olsen (to General Baking Co., New York, N.Y.). U.S. 2,588,409, March 11. A substantially flat tray blank comprising a rectangular piece of cardboard defined into three elongated panels by a pair of substantially parallel, longitudinally extending, fold-defining score lines so that the side edges may be turned up to provide side-wall panels flanking a bottom panel.

Folding Box, W. A. Adams, Petaluma, Calif. U.S. 2,588,455, March 11. A folding box comprising an integral bottom, sides, ends and substantially horizontally disposed end ledges, the length of said box in the horizontal plane being greater than the length of bottom, ends consisting of a plurality of layers of material and having folded end flaps, one flap being folded inside and the other outside.

Receptacle Filler, F. D. Chapman, Berlin, Wis. U.S. 2,588,483, March 11. In a receptacle filler, an annular series of granular-

material measuring pockets revolvable about an axis and having an annular series of discharge hoppers surround pockets.

Labeled Open-Mesh Bag, C. V. Brady and A. F. Ottinger (to Bemis Bro. Bag Co., St. Louis, Mo.). U.S. 2,588,695, March 11. A bag comprising a bag body of open-mesh fabric which is characterized in having been woven so as to have a band wherein in the yarn count, as to those yarns which extend lengthwise of the band, is substantially less than the yarn count in the remainder of the fabric, and a label strip having a width corresponding to the width of band peripherally encircling the bag body on the outside thereof over said band and adhesively secured thereto.

Bobbin Package, J. B. W. Andrew (to Container Corp. of America, Chicago, Ill.). U.S. 2,588,701, March 11. A yarn bobbin package comprising a paperboard wrap and a bobbin having an end plate from which there extends a knob element including an outer flange and a restricted neck portion of predetermined length and diameter between the flange and end plate, said paperboard wrap comprising a bottom wall, a pair of side walls hinged on opposite edges of the bottom wall, and a pair of top flaps each hinged on the upper edge of a side wall and overlapping when in closed position.

Bottle Crate, H. H. Goldstein, North Arlington, Va. U.S. 2,588,824, March 11. A box comprising a base and opposing side and end panels secured to base, opposing panels having spaced vertical grooves on inner wall thereof open at top edges of panels with the grooves in panels defining shoulders spaced from the base of the box, a partition structure with box comprising a series of transverse boards which are imperforate and unslotted throughout their lengths.

Egg Carton, J. A. O'Reilly, Bellingham, Wash. U.S. 2,588,936, March 11. A cellular carton comprising a blank that is scored and folded to form a back wall, a front wall, a bottom and a horizontal top panel; the panel being divided in a succession of transverse strips; alternate strips being vertically turned to form partitions that define a succession of cell spaces along the carton.

Nursing Bottle, F. H. Schellin (to The B. F. Goodrich Co., New York, N.Y.). U.S. 2,588,991, March 11. A nursing bottle comprising a container having an outwardly threaded surface at its mouth, a nipple of resilient material having an outwardly directed radial flange for seating it on the container at the mouth thereof, a retaining ring internally screw-threaded for engaging the threaded surface of the container and an inwardly directed flange overlying the flange of said nipple, being equipped with a hollow protector for enclosing the nipple with interlocking means.

Box Closure, R. F. Snyder, East Cleveland, Ohio. U.S. 2,588,996, March 11. A folded paper box comprising side panels and end panels, an end flap extending from one end of end panels, a substantial portion of end flap being equal in width to the associated end panel, and means attached to side panel to form the top of said box.

Glass Container, C. Welhart (to Owens-Illinois Glass Co., a corporation of Ohio). U.S. 2,589,005, March 11. A container having circular wall defining a mouth, a continuous screw thread formed exteriorly of wall for holding engagement with a closure, said thread at diametrically opposed points of the wall having sections reduced in size and extending normal to the axis of the container, said sections being intermediate the ends of the thread.

Method Of Forming Flexible Endless Tubes, R. C. Bremer, Zurich, Switzerland. U.S. 2,589,041, March 11. The method of forming flexible endless tubes which consists in the steps of spirally winding strips of material to form an endless tube, continuously force feeding the endless tube as formed, and forming continuously force-fed tube into helical corrugations.

Tube-Type Container, L. C. Brooks, Milwaukee, Wis. U.S. 2,589,045, March 11. A consumer-type container made from a single blank of flexible material cut and scored to provide a tubular body substantially rectangular in cross section and having inwardly rigid supporting ledges flush with opposite ends of the body sides.

Combined Closure and Dispensing Applicator For Collapsible Tubes, J. B. Tegarty (to Justin W. Macklin, Cleveland, Ohio). U.S. 2,589,206, March 11. An applicator and closure for use with a collapsible tube having a discharge opening and comprising a base member provided with securing means for attachment to the tube and having an outwardly extending member having a skirt turned toward and adapted to engage the end of the collapsible tube, said cap being provided with accurate openings in outwardly extending member within skirt.

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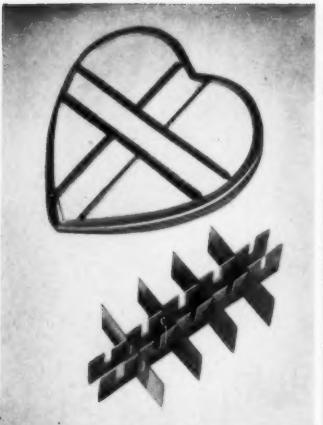
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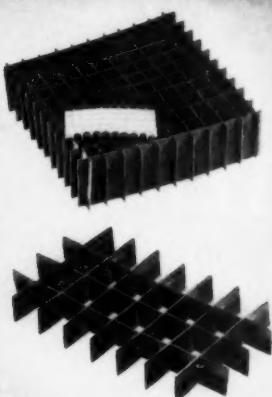
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General Motors packaging

The immensity and importance of modern packaging were uniquely recognized by General Motors Corp. in its presentation at the 21st A.M.A. Packaging Exposition. Packaging achievements of the corporation's 24 manufacturing divisions were reviewed (see Conference report, p. 143, this issue) and packaging operations that involved the expenditure of \$42,000,000 last year were described.

Probably few if any companies have ever gone to greater lengths to provide such an objective, over-all view of their packaging. Featured in the presentation was a Buick display showing the wide range of materials used in the divisions parts packaging operation. More than 40 types of materials were assembled for the display. The Detroit Diesel Engine Div. presented a moving conveyor line that carried, both cutaway and in entirety, packages containing service parts, such as cylinder liners, valves and wrist pins. The entire series of discussions was expertly illustrated with color slides depicting dozens of packaging accomplishments.

GM's packaging demonstrates an exceedingly mature level of methods development and is characterized by numerous examples of pioneering and packaging ingenuity.

Many of the packaging examples reflect maximum protection with minimum expenditure of material. For example, the Hyatt Bearings Div. of GM packages 3,200 lbs. of roller bearings, securely contained in only 41 lbs. of corrugated board and mounted on a pallet of the same material. Similarly, Moraine Products Div. packs 19,068 connecting rod bearings weighing 2,100 lbs. in corrugated board on a non-returnable wood pallet, package weight being only 80 lbs.

A re-usable steel container for shipping and storing jet aircraft engines is used by the Allison Div. The container is air- and water-tight and, packed with 12 lbs. of a dehydrating agent and 5½ to 8 lbs. dry air pressure, protects a jet engine from rust indefinitely.

Cleveland Diesel Engine Div.'s commercial packaging has been accepted for export by the armed forces. One of its examples of packaging is a cam-shaft on which six applications of protectants are built up by steps.

Another example of military packaging, by the Inland Mfg. Div., palletizes five sections of tank track for compact stacking.

Chevrolet experienced tremendous savings in time, labor and shipping costs in the packaging of large sheet metal parts and replacement engines.

Chevrolet was one of the first firms to use the excelsior pad wrap for body quarter panels, turret tops, doors and fenders for service use. Panels and turret tops formerly were crated and doors were cartonized. In one year, the wrap saves Chevrolet, in the shipment of body quarter panels, 1,170,000 lbs. of materials and 197,000 cu. ft. of space; in the shipment of turret tops, 672,000 lbs. and 316,000 cu. ft.

A replacement engine is shipped by Chevrolet on a pallet base with saddle held by a wirebound wrap-around mat, with a hold-down piece which braces the engine in all directions. Attaching installation parts are enclosed in a carton inside the mat.

Oldsmobile and Pontiac also wrap large sheet-metal items in paper. Pontiac spiral wraps bumpers in paper with a packaging machine, a method which it helped develop.

Several GM divisions use round and square tubing of various materials, sliced laterally to accommodate items of various lengths. Hyatt Bearings uses square corrugated tubing and New Departure uses plastic tubing to seal precision micro-instrument ball bearings. Delco-Remy and CMC Truck & Coach go in heavily for fibre cans, the latter using seven-ply for military packaging.

GMC Truck's most spectacular put-up is a 8-ft.-wide, curved one-piece coach windshield, packaged in a specially designed ribbed corrugated board container. No breakage has occurred since the package was adopted in 1950; before, breakage was 33%.

Hydraulic valve lifters must retain oil during shipping and storage, and the Diesel Equipment Div. seals in the lubricant by hot plastic dip.

One of the strongest GM packaging jobs is a T-41 tank range finder, produced by Ternstedt, on 3-by-5-in. skids, with 2-by-6-in. framing, bound by ¾-in. bolts 18 in. long.

Packard Electric, Delco-Remy and Delco Products are experiencing remarkable savings through the use of corrugated board trays on non-returnable wood pallets for shipping motors, starters, generators and tank shock absorbers.

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plugs and dash knobs nested in papier-mâché.

Cadillac provides for inexpensive and positive identification of rough items, such as stampings, castings and forgings, by means of adhesive tape with parts numbers printed thereon.

Frigidaire, largest package consuming division in GM, depends mainly on cleated plywood to protect its refrigerators and on corrugated board for other products.

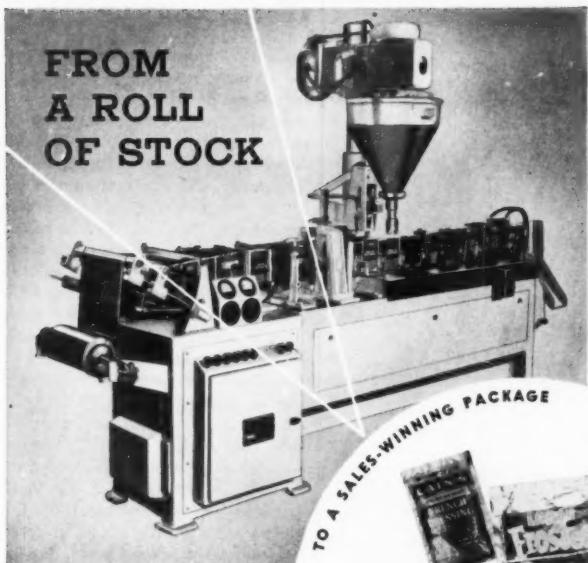
Tape with 880 lbs. tensile strength per inch of width is used extensively to secure and reinforce these packages.

Wonder Bread

(This article continued from page 114) Bakers' quartet; Whispering Little Jack Little; "Renfrew of the Mounted"; "Pretty Kitty Kelly," starring Sylvia Sidney; "I'm Maudie," with Mary Mason and Robert Walker; "Sky Blazers," with Roscoe Turner; "The Wonder Show," with Jack Haley; and the "Great McCoy," with Orson Welles and Rita Johnson.

A good bread, a wonderful package and wonder shows, therefore, tell the story of this successful product and prove once again that a good name and a good package design are essential to top billing in the terrific competition of today's merchandising.

CREDITS: *Wonder Bread wraps* (waxed paper and cellophane)—Central Waxed Paper Co., 5100 W. Roosevelt Rd., Chicago; *Fabricon Products, Inc.*, River Rouge, Mich.; *Marathon Corp.*, Menasha, Wis.; *Nashua Corp.*, Nashua, N. H.; *Pollack Paper Corp.*, 2236 S. Lamar St., Dallas, Tex.; *Waxide Paper Co.*, 20th & Tracy, Kansas City, Mo.; *Western Waxed Paper Div.*, Crown-Zellerbach Corp., San Leandro, Calif. *Bread-wrapping machines*—American Machine & Foundry Co., 485 Fifth Ave., New York. *Cake labels*—American Colorotype Co., Allwood, N. J.; H. S. Crocker Co., Inc., San Bruno, Calif.; Oliver Machinery Co., Grand Rapids, Mich. *Cellophane wraps for Hostess Cakes*—E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.; Olin Cellophane Div., Ecusta Paper Corp., 270 Park Ave., New York; *Sylvania Div.*, American Viscose Corp., Philadelphia, Pa. *Wrapping machines for Hostess Cakes*—Battle Creek Wrapping Machine Co., Battle Creek, Mich.; Lynch Corp., Packaging Machine Div., 3600 Summit St., Toledo, Ohio; *Package Machinery Co.*, Springfield, Mass. *Trays for Wonder Rolls*—Consolidated Paper Co., Monroe, Mich.; Empire Box Corp., Garfield, N. J.; Gordon Cartons, Inc., 1629 Warner St., Baltimore, Md.; *Marathon Corp.*, Menasha, Wis.



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TO EVERY STORY!
2 SIDES...
TO EVERY LABEL!

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EVER READY is dedicated to the design and production of labels that are "right both times."

ON THE FACE OF IT... attractive, well well-styled effective "Tools of Business" that Go Places and Do Things!

BACK OF THE LABEL... through specialization... special stock, special adhesives, special formats. Heat-Seal, Red-E-Stik (pressure-sensitive), spot gummed, strip gummed, carbonized, cut single or in rolls. Our 50,000 customers tell us we are right!

Sure, we can help you too!



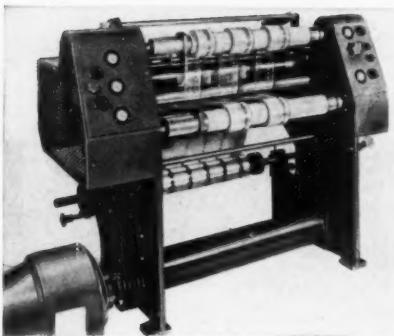
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CORPORATION
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control

**guarantees fast,
accurate slitting**



A new air-operated system of payoff and rewind tension control makes the Dusenberry Model 585 the most sensitive, responsive precision slitter you can buy. It is simple to operate and slits films, foil, tapes and other webs at speeds up to 500 FPM.

The clutch control, brake and mandrel locks are air-operated, assuring even-tension winding. All end play and shake are removed from the mandrel by the design of the mandrel locks. The dials and controls are right up front where you don't have to be an acrobat to see and use them. The Dusenberry Model 585 Slitter comes in 32", 42", 52" and 62" widths. Because it's a top-notch performer that's priced low, you should know more about it.

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Design controversy

The Folding Paper Box Assn. of America has acknowledged the protests of independent package designers regarding design credits in the association's annual Carton Competition by adopting a new statement of policy. The policy, which originated with the Public Relations Committee and was approved by the Executive Committee and the Board of Directors at the recent annual meeting, provides that (1) certificates of award in the competition will, as in the past, be given to no one other than member boxmakers and their customers; (2) it will be up to individual members or their customers to extend credit to designers or anyone else as they see fit and (3) the "Best Artistic Design" Category will be eliminated as such and combined with Classification II, "Printing."

There are indications that this policy will not satisfy the designers. In a statement issued shortly after the new FPBA policy was announced, Jim Nash, New York designer, deplored the controversy, but upheld the right of the independent professional designer to due credit for his part in the package creation.

"When a professional designer," said Mr. Nash, "shows among his samples designs which are [identified] in trade publications as the creation of a folding-carton manufacturer, a question naturally arises in the mind of a prospective client as to the integrity of both the professional designer and the carton manufacturer.

"The elimination of the award for 'Best Artistic Design' does not solve the problem."

Mr. Nash made it clear that the designers were not asking for certificates of award, but merely for identification of their work in public announcements of award-winning packages. Magazines which publish the competition results have been unable to obtain this information from the association.

Face-cream jar-wiper

Polyethylene's chemical inertness is helping Pond's Extract Co., Clinton, Conn., maintain high speed on production lines where face cream is poured into jars. Properties of the face cream are such that the filled jars come from under the nozzles with considerable excess cream rising above the top of each jar. This must be

wiped off to leave a smooth, flush surface.

The polyethylene wipe-off blades now in use at Pond's provide the desired flexibility and are unaffected by the alcohols, perfume oils and hydrocarbons encountered. The result is uninterrupted utilization of the potential packaging speed of the filling machines.

The blade for the wiping device had been made of cloth-inserted rubber sheet selected primarily for flexibility. Softening and erosion of the blade made frequent replacement and servicing necessary, which nibbled away at the 120-a-minute or more rate at which the filling machine operates.

CREDIT: Polyethylene wiper blades, Plax Corp., Hartford, Conn.

Frozen pie container

Individual-portion frozen deep-dish fruit pies now being market tested by the McIntosh Co., Inc., Geneva, N. Y., are packed in 7-oz. plastic-coated paperboard containers. After pie filling and crust dough are loaded into



the containers, the pies are frozen for distribution and sale from retailers' freezer display cabinets.

Consumers bake the packaged pies for 20 min. at 450 deg. and serve them in the containers, which are attractive and inviting at the table.

The container provides a package said to be leakproof, able to stand freezing and baking temperatures without damage to either container or contents, and attractive enough for table service. It is a round plastic-coated paperboard container of the nested type.

The slip-over covers are being tested in both solid and window type for comparison of sales effect. Covers carry the McIntosh name and contents description, so that the chinaware-patterned container appears at the dinner table with a minimum of labeling.

CREDIT: Containers, Sealright Co., Inc., Fulton, N. Y.



Paper that Gets Around

Oops—there goes the sausages! But never fear, that package is securely wrapped in Rhinelander Greaseproof. And speaking of packages, we'll bet you didn't know that literally hundreds of fine food products in your favorite grocery or supermarket are wrapped in these miracle-working papers.



Fresh From the Oven—your daily bread (and let it be light and airy, say Americans). YEAST, whether it be fresh or dried, finds that G & G Task Papers® provide all the qualities its exacting packaging requirements demand. One of the best packages for bread itself is glassine.

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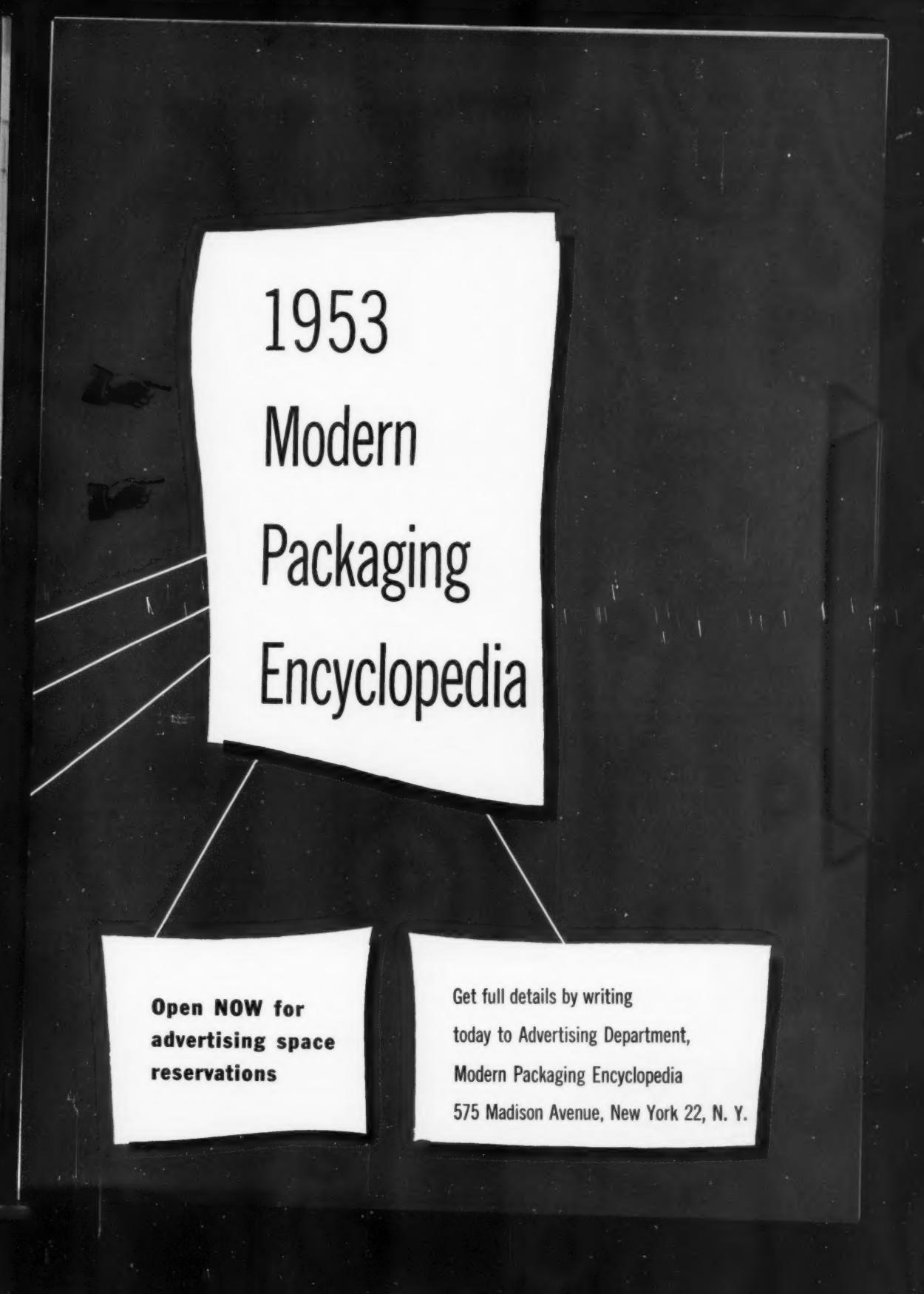
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A durable, tough, single-ply kinkled interior wrap of blanket-like softness. Protects against shock and vibration—prevents surface mors and scratches—provides absorption and insulation. KREPAK conforms to any shape without tear or breakage no matter how irregular the shape. Write for this booklet today.

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FDA's antimycotic ruling is protested

Action of the Food & Drug Administration in branding as toxic cheese wrappers containing dehydroacetic acid in an anti-mold coating has posed problems for cheese packers and aroused vigorous protests from converters. The antimycotic coatings and impregnants have been widely used in recent years.

The FDA recently seized several thousand pounds of processed American cheese contained in such wrappers in Chicago, Kansas City and San Francisco on the grounds that the dehydroacetic acid might have penetrated the cheese. The FDA declared that the toxicity of dehydroacetic acid is comparable to that of carbolic acid and indicated that it would continue to confiscate shipments of cheese which it considers contaminated by it.

While it is well known that dehydroacetic acid is toxic in large amounts, packaging technicians con-

tend that any amount that could penetrate cheese from a wrapper would be minuscule and of no significance.

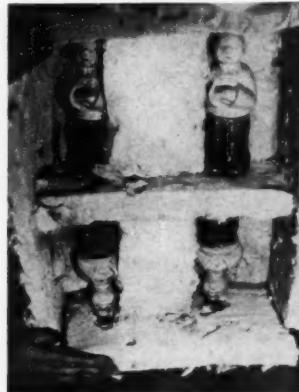
If the case indicates a new FDA policy, it may have a far-reaching effect on packaging.

Speaking in Coronado, Calif., shortly after the FDA's action, Walter Dixon of Marathon Corp. pointed out that the attitude of the FDA "poses a serious question regarding many other substances which get into foods, or cheese, from the container as incidental but non-injurious contaminants."

This policy, Mr. Dixon said, "would constitute such a burden on container and packaging manufacturers that it would be almost impossible to bring into use any new or improved materials resulting from research." Plasticizers used today in all the wrapping films are chemicals, he pointed out.

Mail-order house "foams-its-own" dunnage

The Miles Kimball Co. of Oshkosh, Wis., specialty mail-order house, has demonstrated savings in postage, time and worker fatigue, as well as reduc-



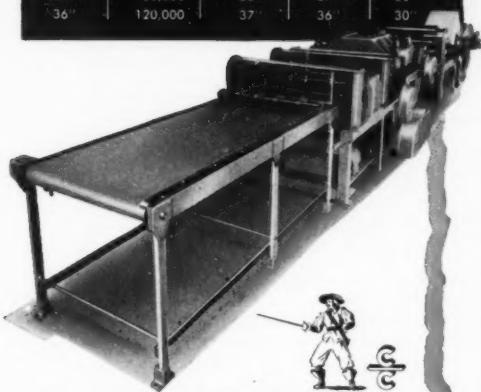
tion in breakage of fragile items, during a full year's experience with phenolic foam package cushioning.

T. L. Drummond of Miles Kimball developed the techniques by which the company takes advantage of the phenolic foam's properties. Theirs is said to be the first large-scale commercial packaging use of the product by a mail-order house.

At Miles Kimball, the process starts with mixing of fluid phenolic resin with an acid catalyst at room temperature. The mix is stirred mechanically and poured without delay into a simple 5-ft.-square mold, lined with kraft paper for easy separation. Foaming of the aerated mix continues until it has expanded to about 200 times the original volume, filling the mold in 15 to 30 seconds. After a very short holding time, sides of the mold can be opened and the foam can be handled. Density is between 0.3 and 0.4 lbs. per cu. ft.; one man can handle the cubes, but in practice they are easier to pick up if first sawn in half. Two operators can keep the 45-second operation going for production rates up to 700 cu. ft. an hr.; during peak business periods, Miles Kimball found that a three-man crew could produce enough during a day to keep a night shift of packers supplied. Packaging material storage space is greatly reduced, of course.

The material is generally supplied to the packaging tables in sawn slabs 1 to 2 in. thick. They can be easily broken off in sizes needed. Procedures in packing are simplified because there is no danger of the foam cushioning materials shifting or bunching. Light-weight glassware, ceramics and other

Model	Maximum Pressure Lbs.	Maximum Web Width Inches	Maximum Die Width Inches	Maximum Die Length
20'	40,000	21"	20	26"
26'	80,000	28"	27	30"
36'	120,000	37"	36	30"



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CAN YOU PACKAGE WRAP... YOUR MOST Fragile PRODUCTS



- Wraps 80 to 150 Single or Multiple Units per Minute
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Even the most brittle, breakable products such as crackers, stick candy, glass stirring rods or the medicine dropper shown, can be wrapped *without breakage* on this modern machine. If your products are of the soft, crushable type, such as cakes, pies, cream candies, etc., you can be equally assured of freedom from wrapping damage. "Float Wrapping" is the answer. Machine uses material of all types and produces a neat, attractive, sanitary wrapped package with imprinted label accurately positioned. Fully sealed, your product is safe from dust, dirt and atmospheric changes. Saves labor, too — most installations require only *one operator* to feed and *one* to carton pack. No matter how fragile or irregular shaped your product may be, chances are you can wrap it *faster, cheaper and better* on a Campbell Wrapper.



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Join the many front-line firms which have already made this company a prime source of supply.

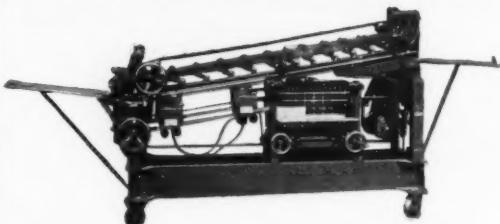


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High-speed, semi-automatic straight line filling to meet the most exacting requirements for filling all types of solutions in bottles, jars or cans. Superior flexibility adapts the machine quickly for large or small runs with maximum efficiency and economy, and long, trouble-free operation. Capacities up to 5 gallons. Filling speeds from 20 to 200 bottles per minute. Send for new catalog.

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MODERN PACKAGING

odd-shaped breakables are simply pressed part way down into the foam slab to form their own cavities, then another slab is pressed over the top. Items are thus embedded and cannot shift.

There is a grain effect in the foam, a property taken good advantage of in the Miles Kimball operation. The fragile items described above are pressed into the "end" grain, while heavier breakables are packed "parallel to the grain" to utilize the foam's maximum compressive strength. The phenolic foam retains its cushioning effects even under compression of several hundred pounds per square inch.

The foam has a pleasing pink color and gives the package a neat, clean appearance.

Actual shipping operations have proved both breakage reduction and lower postage costs. Comparison of weights, volume for volume, of the foamed resin and other cushioning materials used in similar service showed a saving of about 65% for the new material. It weighs about one-seventh as much as loosely packed shredded paper and one-tenth as much as ordinary shredded newsprint. The phenolic foam merely chars under a blow-torch and stops burning when flame is withdrawn. Thermal insulating qualities are said to be high enough for favorable comparison with glass or rock wool.

CREDIT: Phenolic foam, Bakelite Co., a Division of Union Carbide & Carbon Corp., New York.

New wirebound spec

The Wirebound Box Mfrs. Assn. is calling defense contractors' attention to the fact that MIL-B-107A specification for wirebound boxes for overseas shipment of defense goods has superseded and supplanted the old JAN-B-107 specification.

Purchasing agents, packaging engineers and shipping executives are being cautioned that JAN-B-107 wirebound shipping containers for overseas shipment are no longer in keeping with Government requirements, regardless of the wording of Government contracts or bid invitations. Therefore, bidders on wirebound boxes for overseas should compute their packaging costs on the basis of the requirements of MIL-B-107A.

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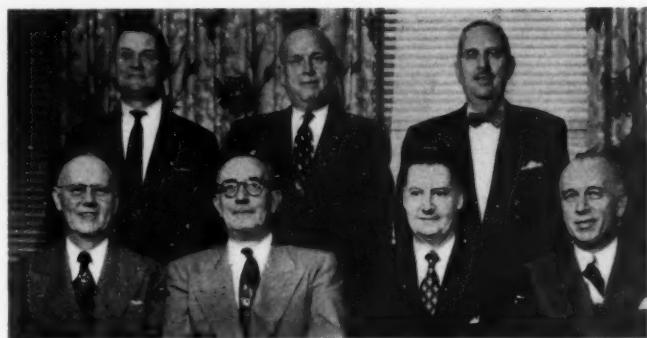
New Folding Paper Box Assn. officers

Members of the Folding Paper Box Assn. of America, at their recently held annual meeting, elected the following officers to serve during the 1952-53 period:

Executive Committee: W. Race of Sutherland Paper Co., who was also re-elected president of the association; Ermin P. Ruf of the Wayne Paper Box & Printing Corp.; W. C. Palmer, National Folding Box Co., Inc.; R. F. Burroughs, Sr., Trenton Folding Box Co.; D. T. Neale, Edwin J. Schoettle Co.; E. J. Mulholland, Chicago Carton Co.; William H. Walters, U. S. Printing & Lithograph Co.

Directors At Large: Messrs. Race and Walters; Dan Int Hout of the Michigan Carton Co.; J. N. Andrews, Ohio Boxboard Co.; W. J. Alford of Alford Cartons; Walter Daley of the New Haven Pulp & Board Co.; D. A. Forsberg of the Forsberg Paper Box Co.; John V. Manners, Paperbox Corp.; William Stuhr, United Board & Carton Corp.; Ralph Schnitzer of the Magnolia Paper Box Co.

National Directors: Messrs. Ruf, Neale and Mulholland; Ralph A.



FPBA EXECUTIVE COMMITTEE members, who were recently elected for 1952-53: Standing (left to right)—W. C. Palmer, William H. Walters, Douglas Neale. Seated (left to right)—E. J. Mulholland, R. F. Burroughs, Sr., W. Race (re-elected president of the association) and Ermin P. Ruf.

Powers of the Robertson Paper Box Co., Inc.; William W. Fitzhugh of Wm. W. Fitzhugh, Inc.; N. F. Greenway, Robert Gair Co., Inc.; Leonard Dalsemer, Lord Baltimore Press; Colin Gardner, Gardner Board & Carton Co.; E. S. Dillard, Old Dominion Box

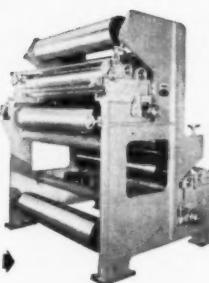
Co.; B. M. Richardson, Richardson-Taylor-Globe Corp.

Territorial Directors for 1952-53 are: New England Group—W. C. Palmer, National Folding Box Co., Inc.; Metropolitan New York—W. B. Leavens, Jr., of Wilkata Folding Box Co.

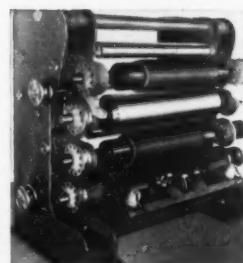


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and Arthur Rous of the Federal Carton Corp.; Upstate New York—A. W. Buchanan, F. N. Burt Co.; Philadelphia-Baltimore—R. F. Burroughs, Sr., of the Trenton Folding Box Co. and Maurice Mahr of the Maryland Paper Box Co.; Southern—Jay C. Bruce of the Bruce Carton Co., A. N. Morris of Newth-Morris Box Corp. and Byron Lengsfeld, Jr., of Lengsfeld Bros., Inc.; Ohio Valley—Donald B. Fobes, Paper Package Co.; Cleveland-Detroit—John F. Sherman of Carton Service, Inc.; Lake Michigan—Ira C. Keller of Container Corp. of America, Randall A. Ross of Cornell Paperboard Products Co. and A. G. Ballenger of Morris Paper Mills; Twin Cities—Paul A. Schilling, Waldorf Paper Products Co.; Missouri Valley—W. W. Cassidy of American Folding Box Co.; Pacific Coast—Albert Stein, Angelus Paperbox Co., and Morton Schmidt, Schmidt Lithograph Co.

Set-up box winners

(This article continued from page 137) Co., for juvenile sterling silver boxes, International Silver Co. **Office equipment:** To Pacific Paper Box Co., for drafting-pencils box, V. & E. Mfg. Co. **Mailing boxes:** To Van Ness Bros., Inc., for ties and ash-tray premium, Haband Co. **Hosiery and wearing-apparel accessories:** To Carolina Paper Box Co., for hosiery box, Schiaparelli. **Miscellaneous:** To Dennison Mfg. Co., for "Buttercorn" brushes box, Silver Chamberlin Co., and to San Jose Paper Box Co., for freezer-foil box, Foil Div., San Jose Paper Box Co.

Class B. Best Artistic Design: Honorable mentions to Van Ness Bros., Inc., for carbon-paper boxes, Burroughs Adding Machine Co.; The Congress Paper Box Co., for three-tier candy box, Marshall Field Co.; C. Albert Sauter Co., Inc., for Lordship stationery, Puritan Stationery Co.

Class C. Superiority of Construction: Honorable mentions to W. C. Ritchie & Co., for bubble bath, Allen B. Wrisley Co.; Newark Paper Box Co., for men's shoes with shoe trees and shoe bags, Johnston & Murphy, and to C. Albert Sauter Co., Inc., for soft-goods boxes, Bloomingdale Bros.

Class D. Best Display Box: Honorable mentions to H. H. Woods Paper Box Co., for electric-range heating unit, Edwin L. Wiegand Co., and to Old Dominion Box Co., for Martex towels box, Fairfax Mills.

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(Photo — A. L. Hansen Mfg. Co., Chicago)

Save 2 out of every 3 sealing motions and get a stronger closure.

You can do it — safely — by sealing the Snake Tape way... with two-thirds less tape. The extra strength in the reinforcing yarn does it!

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also is acceptable for certain carload and less than carload shipments.

FREE—20 yd. Test Sample—FREE

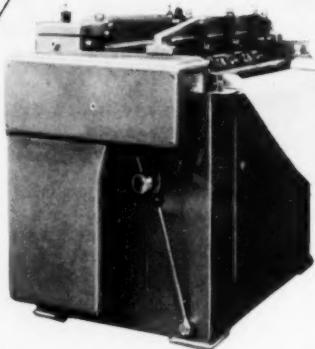
To discover new savings in your shipping room send now for facts and test sample. Write to Angier Corporation, Framingham 11, Massachusetts.



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LUGANO 80



SPEED:
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depending on the material

It scores

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It creases

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The LUGANO 80 does everything a regular slitter and scorer does, and in addition it has the extra advantage of a high-speed cross-cutting guillotine which automatically cuts off any given length.

Fast production makes the LUGANO 80 particularly useful for big runs. Yet changeover adjustments are made so swiftly that the machine may be used for small runs with maximum economy. There is no material waste.

The LUGANO 80 is a trim, compact unit whose smooth performance is a tribute to traditional Swiss machinery manufacturing. Delivery can be made in minimum time.

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cardboard
corrugated paper
reinforced corrugated board
cloth
cellulose wadding
paper
cellophane
plastic films
light metals
leather



New drum pack

The Textile Division of Rohm & Haas Co. is now providing its customers with a new, more convenient container for Rhonite 610, a monomeric urea-formaldehyde paste used for shrinkage control and crush resistance of rayon and cotton textiles. The product is semi-solid and formerly had to be heated in the container so that it would liquefy sufficiently for easy removal. The new container is



made of fibre and its construction avoids the use of heat entirely.

The currently used fibre drum has a $\frac{1}{4}$ -in. hole drilled in the bottom which can be plugged with a cork. To remove the Rhonite, the cork is pulled and air pressure applied at the hole. The 400-lb. mass of semi-solid Rhonite then slides gently into the mixing vat. Ten pounds of pressure are all that is required to do the job. Only these steps are necessary to remove Rhonite 610 from the new fibre containers: hoist the drum over the open mixing tank, remove the band and cover, uncork the hole and apply air pressure.

Pre-packaging show

An automatic fresh-food packaging line will be kept in actual operation during most of the three days, June 10-12, when the Produce Prepackaging Assn., Inc., holds its Second Annual Exposition.

The 40-ft.-long line will be set up in the main exhibit area of the Neil House, the Exposition headquarters in Columbus, Ohio. Tomatoes and other fresh produce and fruits will be sorted, graded, selected, packed, wrapped, sealed, and packed for de-

HELPFUL FREE LITERATURE

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The literature and samples described here contain valuable data that will help increase the operating efficiency of your business.

After selecting the items you want, merely circle the corresponding numbers on the post card, fill in the information requested, and mail.

BOTTLE LABELING MACHINE. Folder explains the method of operation, features, and advantages of the "Novo-Tempo" labeler for applying body, breast, strip, neck and closure seal labels to bottles with crown cork seals, lever or swing closures. Alfred Hofmann & Co. (E-251)

FILLING MACHINE. Bulletin on a universal vacuum, gravity and pressure filling machine with stainless steel valves for filling all types of solutions in bottles, jars and cans. Perl Machine Mfg. Co. (E-252)

INTEGRATED MANUFACTURING OPERATIONS. Booklet explains how its various divisions—research, glass making, packaging machinery, plastics, and heavy machinery—can be of service in the solution of a wide range of industrial problems and manufacturing operations. Emhart Mfg. Co. (E-253)

INDUSTRIAL WRAPPING. Booklet traces the history of the company and explains how its special machinery and special grades of moisture and grease resistant and creped papers and tapes are used in packaging. Angier Corp. (E-254)

PHARMACEUTICAL PACKAGING EQUIPMENT. Brochure describes "Perfektum" machines for washing and filling ampoules, vials and bottles, sealing ampoules and counting and filling tablets. Poppet & Sons, Inc. (E-255)

VACUUM SEALING FOR POLYETHYLENE BAGS. Folder illustrates and describes a patented aluminum seal for effecting a protective vacuum seal in polyethylene bags. Vac-Tie Inc. (E-256)

RIGID PLASTIC CONTAINERS. Catalogue contains illustrations, dimensions, color selections, and suggested uses for nearly 200 stock plastic boxes which are molded of "Styron." Lists sources where these items may be obtained. The Dow Chemical Co. (E-257)

PACKING TAKE-HOME CARTONS. Description of a "Packomatic" packaging line designed specially for handling products which lend themselves to multiple packaging in take-home cartons. J. L. Ferguson Co. (E-258)

PLASTIC POUCHES. Folder illustrates many of the standard and special types of vinyl bags, pouches, cases, folders and coverings which are available from Brockton Mfg. Co. (E-259)

COTTON STRAPPING FOR CONTAINERS. Folder gives details on use of cotton strapping for securing and reinforcing solid or corrugated fibreboard containers up to 75 pounds in weight. Shows key lock method of securing the tape. Chicago Printed String Co. (E-260)

MILITARY PACKAGING SUPPLIES. "Flexkin" folder contains samples and data on a number of protective barrier materials which are approved for use under specifications MIL-B-151 A, JAN-P-151 (Amendment 3, Type 1), AN-E-20 (Type 2). Price list included. Acme Backing Corp. (E-261)

PRINTING AND RE-REELING MACHINE. Bulletin contains details and completes specifications of various widths of the Type I.V.b. Stella printing and re-reeling machine. Hol-Bag, Inc. (E-262)

THERMAL IMPULSE HEAT SEALERS. Bulletins explain the advantages of and show the method of operation of the various models of Vertrod "Thermal Impulse" heat sealers for plastic film and laminates, Data on alloy surface and Teflon-Fibreglas surface heater bars. Vertrod Corp. (E-263)

TURRET LABELER. Described is the "World" Turret Labeler, designed for fully automatic, continuous, low cost labeling of glass containers. Illustrations and diagrams showing construction are included. Economic Machinery Co. (E-264)

FAN DIAL SCALES. Specifications, features, advantages of Exact Weight's new line of automatic fan dial scales. The Exact Weight Scale Co. (E-265)

PACKAGE FILLING MACHINES. Four bench models of the "Whiz-Packer" for filling all types of free flowing and granular products, plus a description of the hopper feed conveyor. Frazier & Son. (E-266)

CANDY BOX PADDINGS. Folder with samples of four different types of candy box padding materials plus sample dividers, boats, tray rolls, and die cut liners. George H. Sweetnam, Inc. (E-267)

"DAY-GLO" COATED PAPER. Bulletin explains the licensing procedure connected with the use of fluorescent "Day-Glo" coated paper. Switzer Brothers, Inc. (E-268)

LABEL PASTERS. Bulletin describes the operation of the Potdevin heavy duty label paster which automatically applies a coat of glue to a label and presents it to the operator for application. Potdevin Machine Co. (E-269)

DRY AIR PUMP. Bulletin tells about the features of the Dexter-Conde "Dry-Air Pump" for delivering clean, dry air for pressure applications, or for creating vacuum pressure. Dexter Folder Co. (E-270)

SEAMLESS PLASTIC VIALS AND TUBES. Many types of seamless vials and tubes are listed and illustrated in this pamphlet. Lusteroid Container Co. (E-271)

CARTON FORMING AND LINING MACHINE. Booklet explains the operation and lists specifications of Peters machines for forming, lining, folding and closing die-cut cartons at high-speed. Peters Machinery Co. (E-272)

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BOX OR LABEL PRINTING. Detailed information is given on the Model 105-10 heavy duty machine for box or label printing. Machine prints one line up to 10% inches in length. Illustrations included. Markem Machine Co. (E-273)

COLLAPSIBLE TUBES. Booklet contains much helpful data on types of tubes, tube sizes, closures, spouts, pipes, and metals available. Standard Collapsible Tube Co. (E-274)

BOX SEALING WITH "SCOTCH" TAPE. Folder tells how six "Scotch" brand pressure sensitive tapes can be used for box sealing tasks. Table lists the properties of these tapes which are engineered for box sealing applications. Minnesota Mining and Mfg. Co. (E-275)

PLASTIC PACKAGING. Folder contains a series of ad reprints showing assorted snap-sealed, textured plastic pouches, kits and packets for use in packaging a wide range of products. Electrical Industries, Inc. (E-276)

POWER CONVEYORS. Booklet illustrates a great variety of apron, stationary, portable, belt booster, inclined belt, floor to floor, chain booster and other power conveyors of all sizes with a wide range of applications in packaging and materials handling. Harry J. Ferguson Co. (E-277)

TOOTHLESS ZIPPER. Folder explains the features and advantages of the "Flexi-Grip" all plastic slide fastener that has no teeth. FlexiGrip, Inc. (E-278)

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PLATE ROLL SERVICE TO ANILINE PRINTERS. Bulletin describes "No-Flex" micro-precision plate rolls and the engraving that may be done on them by Paper Machinery & Research, Inc. (E-279)

WRAPPING MACHINE. The "Wrap-O-Matic" Model RA used for wrapping confectionery products is discussed. Mechanical and operational data, illustrated sizes and shapes of products wrapped, and a list of present users. Lynch Corp. (E-280)

MILITARY PACKAGING HANDBOOK. Booklet explains the meaning of various classification terms used in military packaging specifications. Diagrams show proper methods for constructing water-proof case liners and for preforming pressure sensitive bags or pouches. The Cromwell Paper Co. (E-281)

PAPER WAXING EQUIPMENT. Folder shows the typical arrangements which are available and explains the features and advantages of the "Miami Lo-Type Waxer and Water Finish" for wet waxing, dry waxing or coating one side. Dills Machine Works, Div. Black-Clawson Co. (E-282)

GUMMED TAPE. Folder explains seven extra advantages over other materials when gummed tape is used for sealing shipping and other containers. Gummed Industries Association, Inc. (E-283)

"PACKAGE LABORATORY NEWS." House organ shows some of the latest corrugated fibreboard packages which have been designed and produced by The Hinde & Dauch Paper Co. (E-284)

BIN LEVEL INDICATOR. Booklet explains the action of the "Bin-Dicator," an automatic bin level indicator for all bulk materials. Shows typical installation in bins and hoppers of various types. The Bin-Dicator Co. (E-285)

ADJUSTABLE CARTON SEALER. Details and features of the new "CECO" adjustable carton sealer which is instantly adjustable without tools to a large range of sizes is contained in a folder issued by the Container Equipment Corp. (E-286)

DEFENSE MANUFACTURING FACILITIES. Booklet explains how the facilities of the Richmond, Indiana plant are being adapted for numerous types of defense manufacture. Aluminum Seal Company, Inc. (E-287)

"SNUG WRAP" MACHINE. Details on a unit which allows articles of almost any size, shape or material to be wrapped in a close fitting film of Pliofilm. Charles E. Douglas & Co., Ltd. (E-288)

ROTARY FILLERS. Bulletin illustrates automatic container feed and automatic control mechanism now built into the U.S. Rotary Vacuum Liquid Filler. U.S. Bottlers Machinery Co. (E-289)

INTERIOR PACKAGE FOR PHARMACEUTICALS. Folder explains use of "Kimpak" cellulose wadding as a protective interior wrap for various glass pharmaceutical containers. Kimberly-Clark Corp. (E-290)

PACKAGING MACHINERY. The complete line of Redington machines for automatically cartoning nearly every sort of product, for wrapping, forming trays, coating, counting, filling and banding is described in a brochure issued by F. B. Redington Co. (E-291)

PROCESSING MACHINERY. Illustrated booklet shows a complete line of machinery for processing paper products, including printing presses, waxers, combiners, etc. Hudson-Sharp Machine Co. (E-292)

TRANSWRAP AUTOMATIC PACKAGING MACHINES. Folder contains illustrations and descriptions of machines which automatically form a package from a roll of material, fill and seal it. Volumetric and auger models. Transparent Wrap Machine Corp. (E-293)

STIFFNESS GAUGE. The Taber V-5 stiffness gauge, the theory behind it and its use in determining the stiffness and resilience of various materials is covered in this folder. Price list included. Taber Instrument Corp. (E-294)

livery in their consumer-sized units.

The line's operation is intended to demonstrate those techniques by which pre-packaging can handle the delicate tissues and structures of fresh fruits and vegetables so that they can be advertised and merchandised as standard units.

The pre-packaging line at the show will be sponsored jointly by three companies: American Machinery Co., Orlando, Fla., designers and builders of the continuous conveying and handling equipment; Standard Folding Trays Corp., Brooklyn, N. Y., suppliers of the trays in which the produce will be packed; and Hayssen Mfg. Co., Sheboygan, Wis., makers of the machinery which will automatically wrap and seal the produce in transparent film. Trained, uniformed operators will work the line during show hours, which are 9:00 a.m. to 6:00 p.m. on Tuesday and Wednesday, June 10-11, and from 9:00 a.m. to 3:00 p.m. Thursday, June 12.

The Columbus pre-packaging firm of Philip Office Bros. will supply the produce and supervise the operation of the line.

The Exposition, held in conjunction with the Produce Prepackaging Assn.'s Second Annual Conference, will have at least 28 exhibitors, according to an early report, and exhibit space will be more than double that of last year's exposition held in the same place.

New tinplate gauge

Using X-rays to generate a small area of fluorescence in the base metal, instrument experts in the Jones & Laughlin Steel Corp.'s Research Department have designed and built a new instrument that gives an instantaneous measurement of the tin coating on fast-moving tinplate while it is being produced. With the cooperation of the Aliquippa Works engineers, this control method has been put to practical use in the production of commercial tinplate for the nation's food-packing industry. The device is reported to measure tin coatings in millionths of an inch, does it in a fraction of a second and gives a visual and continuous record of the thickness.

It provides the operator with a constant check on line performance at a point where immediate adjustments can be made to produce a higher de-

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gree of coating-weight uniformity than has ever before been possible. He can, hour after hour, confidently maintain uniform product that meets the exacting requirements of the food processors.

"At last we have a continuous automatic check on our fast electrolytic method of applying tin to steel," says H. W. Graham, vice president. "With this instrument we can improve the quality of tinplate and, at the same time, produce it faster. And furthermore, the device can serve as the primary element in a monitoring system to control the tinplate line automatically."

With such an instrument, the tinplate industry can take full advantage of the precise electrolytic deposition process and reduce the over-use of tin on the base metal with complete confidence that the coating will be uniform and just thick enough for the purpose intended. This saving alone will greatly increase tinplate production with the same amount of tin.

The gauge's principle of operation is applicable to other coatings, but at this critical time emphasis is being placed on its ability to conserve and extend the available supply of tin.

Air Force savings

Under a new reclamation and economy program, the Air Materiel Command reports that it will conserve two critically needed Air Force supply items and save approximately \$700,000 a year. The items are silica gel, used for corrosion control in packaging supplies for protection against tropic, arctic or marine climatic exposure, and sulphuric acid, used in all aircraft and vehicular storage batteries and for cleaning metal. Under the plan, a service-type contract has been negotiated to re-activate reclaimed silica gel through a drying process. At the same time the contract was made, the Air Materiel Command's supply division froze sale of used silica gel at all Air Force installations in continental United States.

It is estimated that, in the dehydration process, the Air Force is also conserving more than 1,000,000 lbs. of sulphuric acid a year for military and essential civilian use. One pound of sulphuric acid is required to produce three pounds of new silica gel. No sulphuric acid is needed to process used silica gel.

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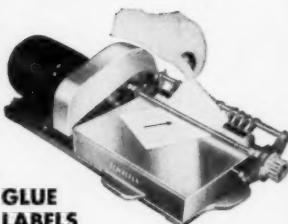
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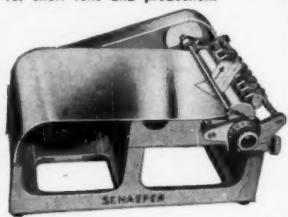
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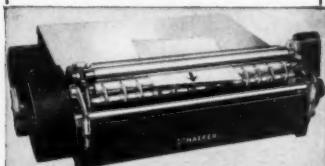
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Polyethylene carboy

A king-sized version of the familiar polyethylene squeeze bottle has been developed for use as a carboy. Made in 6½- and 13-gal. sizes that are standard for bulk shipments of acids and other high-powered industrial chemicals, they will be in use by Allied Chemical & Dye Corp., New York, for shipment of hydrofluoric

The cylindrical outer jacket of phenolic-bonded, water-resistant plywood has four-ply walls. Support comes from three-ply hoops stapled on each end. Head and bottom are five ply. The jacket's inner surface is treated with microcrystalline wax; outer surface is coated with an acid-resistant clear plastic solution. In sidewall compression tests, the plywood jacket withstood approximately 10,000 lbs. without failure.

Savings up to 20% in transportation costs of filled carboys and 60% in shipping costs of empties are anticipated with the new carboy. Tare weight of the 13-gal. unit is approximately 29 lbs., in comparison with as much as 70 lbs. for boxed glass carboys of similar capacity. Shipping or storage space required for the same volume of contents will be considerably reduced—possibly by as much as 50%.

Insurance rates are also expected to be reduced for chemicals shipped in the new carboys. Additional savings may be realized through indefinite re-use of these unbreakable carboys, which thus become "permanent" investments.

The new unbreakable carboy has passed tests necessary for Bureau of Explosives recommendation for ICC approval to ship hydrofluoric acid and electrolyte sulfuric acid solution. Other hazardous chemical liquids for which the polyethylene carboys are expected to be used include common industrial acids, caustic soda solution, liquid pharmaceuticals and photographic chemical solutions. Other early applications may include the shipment



acid (which etches glass) and other corrosive liquids. This is said to be the first shatterproof carboy ever produced.

Inherent qualities of the new round carboy bottles are the same as those of the smaller polyethylene bottles. Filled samples of the carboys, when dropped from various heights on solid concrete, withstood the test without leakage or breakage even at minus 10 deg. F.

A snug-fitting plywood jacket protects the bottle. The bottle's flexibility protects it against rupturing if the contents freeze or if unequal atmospheric pressures are encountered.

The new carboy, with its snug-fitting plywood shell, is claimed to offer considerable savings in the storage space required because its round shape permits either horizontal or vertical stacking.

The new carboy bottles are said to be the largest seamless polyethylene containers produced to date. They are blow molded in one piece, with a wall thickness of $\frac{1}{16}$ in. Each bottle has a heavy-wall molded polyethylene screw cap with a separate inner polyethylene disk for venting internal pressure. A dome-shaped phenolic outer screw cap is provided to protect the closure and the neck of the bottle.



of hazardous chemical liquids to arsenals throughout the country and electrolyte solutions to overseas military establishments. The polyethylene bottles are said to avoid danger of color contamination which has been a problem in previous shipment of some so-called "fine" chemicals.

CREDITS: Polyethylene carboys, Plax Corp., Hartford, Conn. Plywood jackets, Greif Bros. Cooperage Corp., Delaware, Ohio.

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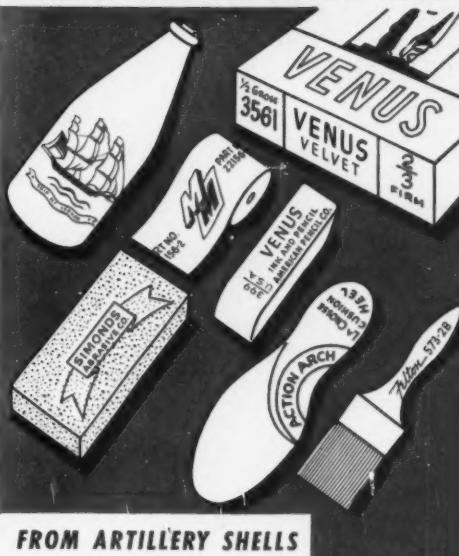
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Polyethylene supply

Despite sharp increases in polyethylene production, this versatile and widely used plastic material will *not* be available in sufficient supply to meet demand, according to the views expressed at the National Packaging Exposition by George C. Miller, vice president, Bakelite Co., a Division of Union Carbide & Carbon Corp.

According to Mr. Miller, the domestic production of polyethylene has been increased some 30% over the level of late 1951 and within the second quarter of this year should be increased by about another 10%. Polyethylene is expected to be increased by still another 30% by the end of 1952 and before the middle of next year, production should be increased about 33% above the level expected at the end of this year. Current U. S. production of polyethylene is estimated by Mr. Miller to be from 90,000,000 to 100,000,000 lbs. annually. Taking into account all of the estimated future increases, polyethylene production should be on the order of 190,000,000 to 200,000,000 lbs. per year by the end of 1953, he stated.

"Despite increased production of polyethylene over the past six months," Mr. Miller said, "demand is still far in excess of supply. There is nothing to indicate that this position, with the exception of a few months at a time, will not continue for a long time to come."

Commenting on the supply of vinyl resins for the packaging industry, Mr. Miller stated that the outlook was adequate. Vinyl resins of the type used for calendered, extruded and cast film for packaging and other purposes has been adequate for some months.

A similarly favorable supply situation was said by Mr. Miller to be existing for polyvinyl acetate and polyvinyl alcohol, both widely used in the packaging field.

Polyvinyl butyral supply is also currently in balance with demand, according to Mr. Miller. "However," Mr. Miller added, "since there are no plans for significant expansion of polyvinyl butyral facilities, the continuation of supply and demand balance depends to a large extent on the availability of production raw materials for the automobile industry and the sale of automotive equipment, since by far the major portion of polyvinyl butyral production goes into the manufacture of safety glass."



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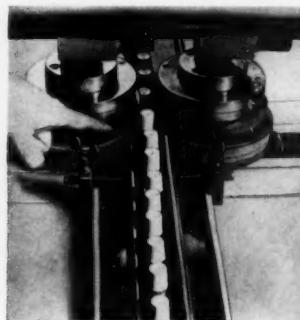
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Vinyl wheels

Two small vinyl wheels on each of the cap-tightening machines used in the nail-enamel department at Revlon Products Co., New York, are saving



many man-hours per month by practically eliminating the time spent in manufacturing and replacing the rubber wheels formerly used and in stopping to adjust the wheels in use.

Each bottle of nail polish is capped with a knurl-patterned urea plastic closure which is screwed down to an exact degree of tightness. The tightening

wheels get extremely rough treatment, since the knurled plastic cap exerts a cutting action on the wheels. The rubber wheels required replacement every 8 hrs. and, furthermore, they needed adjustment several times during their 8-hr. life because their surface wore away.

An experimental wheel was machined from molded vinyl plastic sheet, which lasted for 40 hrs. However, it was difficult to machine the wheel from a vinyl slab. The answer was a plastisol compound (fluid dispersion of resin in plasticizer) made with vinyl paste, which could be easily handled with simple equipment; a hotplate to heat the mold and a sheet metal cover to keep the heat in. The paste was simply poured into the mold, the mold placed on the hotplate and the cover placed over the mold. The paste fused at 375 deg. F.

By properly formulating the plastisol for maximum abrasion resistance, the wheels now last as long as 160 hrs., an increase of 2,000% over the life of rubber wheels.

CREDITS: Geon vinyl paste resin, B. F. Goodrich Chemical Co., Cleveland, Ohio. Plastisol Compound, Rubber Corp. of America, Brooklyn, N. Y.

Sack-cloth tricks

(This article continued from page 127) cloth, about 10% of the annual production of cotton broadwoven goods going into bags during the last decade. During this period, bag manufacturers consumed annually more than half a million bales of cotton, woven into 866,000,000 yds. of cloth. About half of this total goes into poultry, dairy, hog and other feed bags, while an estimated 25% is ordered for flour-packaging purposes.

The rage for "sack-cloth" sewing has grown into a full-fledged category of fashion. The printed designs are most carefully styled to leading fashion and color trends, and leading pattern companies periodically get out complete collections of fashions to be made especially from feed bags. The directions in these pattern books read not in terms of yard lengths required, but specifying the number of bags of a certain size to make, say, an evening dress, a sport frock, slacks, a beach coat or a child's dress or suit.

CREDITS: Tablecloth, apron and napkin bags, Percy Kent Bag Co., Kansas City, Mo. Pillow-case bags, Bemis Bro. Bag Co., St. Louis, Mo.



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MOVE OVER, ALCIABIADES, they may throw us into the pokey with you. Observe, if you please, just two items from Gibraltar's Can-This-Be-True-file:

Item: Increase in week's sale of National Biscuit Company's FIG NEWTONS CAKES when set up in a Gibraltar floor-stand . . . 500% . . . while their RITZ CRACKERS rocketed 800% in the same period.

Item: Sales increase within 3 weeks in Park & Tilford Reserve when set up in a Gibraltar floor-stand . . . 800%.

A DOLLAR BILL for four bits? On second thought, Alciabiades, you weren't disturbing the peace, you were short-changing the public!

AT GIBRALTAR WE don't really consider the above items unusual, for two reasons: . . . we firmly believe point-of-purchase is the most dynamic selling method yet devised. . . . we think we have a more-than-moderately dynamic way with a point-of-purchase Merchandising Display. We expect our floor-stands and counter-merchandisers to drive percentage figures right through the roof.

EVERY GIBRALTAR MD* is craftily designed to Disturb The Peace in its selling area.

want to start a riot...
GIBRALTAR-style?

*Merchandising Display

Mr. S. P. Bochever, Director
GIBRALTAR MERCHANDISING DISPLAYS
Gibraltar Corrugated Paper Company, Inc.
8101-25 Tonnelle Avenue, North Bergen, N.J.

Without obligation on my part . . .

Please send me my copy of the Gibraltar MD brochure.

Please have your representative telephone me
for an appointment.

NAME _____

COMPANY _____

ADDRESS _____

Gibraltar

CORRUGATED PAPER COMPANY

8101 Tonnelle Ave., North Bergen, New Jersey
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Howard Seal controlled polyethylene plastic bags are the finest obtainable. They are moisture-proof, fracture-proof, and unaffected by temperature changes. You can absolutely depend on their uniformly high quality... Look to Howard for these outstanding features:

① Converted from flat tubing, Howard Seal bags are seamless and guarantee complete sterility inside for packing processed foods. New production methods absolutely eliminate pinholes.

② Controlled as to size, strength, thickness, sealability, and chemical inertness — You can depend on the uniformity of each shipment of Howard plastic bags... And they will conform to your most rigid specifications.

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Batch to batch uniformity assured
by rigid laboratory control

Write for further details

RUBBER LATEX CO. of AMERICA
CLIFTON, NEW JERSEY

Handkerchiefs

(This article continued from page 123) miniature lipstick-red handkerchiefs with white rolled hem, promoted as hankies which would show no lipstick smudges. The item and the tiny package were so successful that the same company last month merchandised the same little red box, redesigned with the seasonal promotion, "To My Valentine," containing one floral-print handkerchief. Twelve of the little boxes were put in a hinged set-up box, suitable for open display when the lid was opened, showing the inside cover reverse printed in white over an outline of a heart against a bright red background, reading: "Valentine Greetings by Kimball." The seasonal promotion was thus tied in with the company's own trade name.

Another idea that is being considered by a number of firms is a handsome three-drawer, set-up box containing a wardrobe of handkerchiefs styled for all occasions—an assortment that should receive enthusiastic response for Easter, Mother's Day, graduation and other gift occasions.

Amos Parrish has aided in the idea of packaged handkerchief promotions by suggesting the wardrobe idea through the use of a gold-covered "treasure chest" box containing a collection of handkerchiefs in buccaneer colors tying in with a fashion clinic.

Another packaging idea that has been quite successful is the gift-card mailer. Treasure Masters, Minneapolis, for example, have presented as a counter-selling idea a merchandiser containing floral-printed handkerchief folders in a variety of designs together with a tiny paper-packet sachet and mailing envelope for placement on handkerchief counters where shoppers may purchase the gift mailer when they select handkerchiefs.

These ideas, however, are only the beginning of many more to come. There are many opportunities in the realm of men's handkerchiefs which have been scarcely touched. The whole handkerchief industry is a challenge to designers, box makers and many other suppliers of decorative packages, who can provide ideas with strong counter appeal at costs that are suitable for handkerchief merchandising.

CREDITS: M. & M. package designed by George Reiner, 212 Fifth Ave. New York, and supplied by Lebanon Paper Box Co., Lebanon, Pa.

Radioisotopes

American Can Co.'s research division at Maywood, Ill., is continuing to broaden its research program by investigating the use of radioisotopes—atoms which emit radiation—in tracing complicated chemical and biological processes, the company reported.

O. F. Ecklund, Canco technologist, attended a four-week course in the techniques of using radioisotopes in research, given at Oak Ridge, Tenn. The course was conducted by the Special Training Division of the Oak Ridge Institute of Nuclear Studies. In the company's research program, Mr. Ecklund plans to study the use of radioisotopes in food sterilization, for measuring the thickness of metal and organic coating, and for curing rubber and enamel.

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Union Standard Equipment Company
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DELTA-SEAL PACKING UNIT: For 5 and 10 lbs. bags, complete with settling and compression conveyors, motor 22-140-60. Cyc.-s phase, unit uses very little electrical mechanical condition, priced \$5,000.00 f.o.b., Los Angeles. Write California Milling Corporation, Box 3488, Terminal Annex, Los Angeles 54, California.

HELP WANTED

SALES ENGINEER OR TECHNICAL ENGINEER: Recognized manufacturer of industrial packaging equipment has opening for qualified sales engineer or technical salesman with executive ability. Replies will be held confidential. Box 326, Modern Packaging.

QUALITY CONTROL TECHNICIAN WANTED: Rapidly expanding, large nationwide concern has plant has opening for quality control technician to act as assistant in charge of department. Must be fully acquainted with production and quality control. Splendid opportunity for qualified applicant. Replies kept strictly confidential. Box 327, Modern Packaging.

PACKAGE ENGINEER WANTED: With design experience, needed for work in rapidly expanding Southern corrugated box plant. Great opportunity for aggressive man with experience and creative ability. Replies treated in strictest confidence. Box 328, Modern Packaging.

CHEMISTS: Packaging field experience preferred. Large well-known concern located New York City has opening for B.S. graduate with minimum of one year's experience in laboratory work. Salary commensurate with experience and qualifications. 5 day week. Submit detailed resume of experience, education, age, present salary, etc. Box 330, Modern Packaging.

PACKING-CRATING-SHIPPING: Man to develop and improve methods of shipping various products of national industrial corporation. Particularly interested in experience in handling metals including sheet, wire, stampings, etc. Interested in preparing preparation for protective shipment rather than decorative packaging for display or advertising. Applicants should be proficient in plant materials handling and experienced in design and use of skids, boxes, reels;

should understand moisture-proofing, wrapping and labeling problems. Position will be based at home office and will entail travel to various plants. Excellent opportunity for man with vision to understand problems and ability to design solutions. State age, experience, past earnings, in letter with particulars to Box 334, Modern Packaging.

SALES REPRESENTATIVES AND SALES PROMOTION EXECUTIVE: Advertising Display and Packaging. One of the country's foremost manufacturers of permanent and semi-permanent advertising signs and merchandising displays, established 30 years, with an unlimited range of unusual facilities. Excellent opportunities for career, and offers an exceptional opportunity for one or two top-notch men, local and out of town, having the necessary qualifications. Salary or drawing account commensurate with ability. The company has a similar opportunity in its packaging division, which produces some of the nation's outstanding gift containers and folding boxes. Please write in complete confidence. Box 335, Modern Packaging.

SALES MEN OR BROKERS WANTED: To sell bags made of cellophane, polyethylene and combination cellophane and glassine. Many territories available. In reply, give age, past experience, territory, type of accounts you can call on and other lines carried. Box 336, Modern Packaging.

SALES MEN: Exclusive territories now available in Oklahoma, Texas, Louisiana, Minnesota and Utah, representing printer and converter of cellophane, polyethylene, lunearith, etc. Preferably interested in brokers and agents. Will only give age, experience, present lines carried, territory covered, etc. Box 337, Modern Packaging.

SALES MEN OR FACTORY REPRESENTATIVES WANTED: We manufacture a complete line of heat sealed cellophane bags, used by manufacturers in many fields. Salesmen or presentative handling, wanted, local, such as purchases, etc. and interested in adding our line, please write or call, New Jersey Cellophane Bag Co., 1715 Clinton Place, Newark 8, N. J. Waverly 3-1800.

PACKAGING ENGINEER: Career opportunity available in large Midwestern pharmaceutical manufacturing company. Chemical engineer, chemist, or man with equivalent training or experience required to meet challenging packaging division problems arising out of drug, medical and pharmaceutical research and production. Salary commensurate with background and training. Careful consideration and prompt reply to statement of your qualifications. Box 342, Modern Packaging.

SITUATIONS WANTED

PACKAGING DIRECTOR OR ASSISTANT: College graduate, age 37, with several years' experience as supervisor of design and development for leading carton manufacturer. Thorough knowledge of all phases of carton design and container production. Familiar with other packaging media, and with packaging machinery and techniques. Able to organize and supervise entire packaging program. Now located in Chicago, willing to move. Box 338, Modern Packaging.

MANUFACTURER'S REPRESENTATIVE: 15 years packaging experience seeking lines for Ohio and surrounding territory. Only good lines desired from manufacturers with exclusive and protected sales rights will be considered. Box 333, Modern Packaging.

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Up to 60 words.....\$10.00	Up to 120 words.....\$20.00	Up to 180 words.....\$30.00
Up to 60 words (boxed).....\$20.00	Up to 120 words (boxed).....\$40.00	Up to 180 words (boxed).....\$60.00

For further information address Classified Advertising department, Modern Packaging, 575 Madison Ave., N. Y. 22, N. Y.

OPPORTUNITY WANTED: Family man, 37, seeking future where following background can be applied: 19 years practical experience cellophane-paper aniline printing with thorough knowledge production procedure, cost and quality control. Have machine design and engineering experience. Completely familiar operation Material-handling machines. Present employer known of this ad and by mutual agreement am available June 1, Box 343, Modern Packaging.

MISCELLANEOUS

WANTED: PLASTIC SCRAP—Cellulose Acetate and rigid vinyl sheet scrap in any quantity. Also Polystyrene, Acetate, Butyrate, molded rejects, scrap and excess molding powder inventories. Box 316, Modern Packaging.

WANTED TO PURCHASE: A wrapping machine, similar to Hayssen or Battle Creek that will wrap a box 7" long, 4" wide and 1½" deep. Please advise condition, etc. Box 340, Modern Packaging.

WANTED: Smith cellulose envelope machine (Champion VW) a four-color roll to roll aniline press. Eighteen to thirty-two inches. Kidder preferred. Box 339, Modern Packaging.

WANTED: Sales representation in New York City by manufacturer's agent for small set-up boxes, special hand made items, sales kits, etc. Would be very desirable supplement line. For further details write, Kalamazoo Paper Box Company, P.O. Box 1028, Kalamazoo, Mich.

CELLOPHANE FOR SALE
17,000 lbs. #600 PT cellophane in rolls 42" wide, 126 lbs. to each roll. Good condition. In original packages as received from manufacturer. On hand at our Bristol, Pennsylvania plant.
Rohm & Haas Company
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1700 Walnut Street
Philadelphia 3, Pa.

WANTED: Cameron Slitter, Packaging Line, Labeler, Capper, and Mixer. Box 320, Modern Packaging.

INQUIRIES INVITED: Regarding new type dispensing device for carton packaged powdered medicine. Take a look at it. It is a simple and conveniently openable container combination of pleasing appearance. Reply to D. W. Forsyth, 231 W. Channel Road, Santa Monica, Calif.

FOR SALE: Inventory clearance at reduced price. 100 reams bright silver gummed foil, 100 reams bright gold gummed foil, 200 reams dull gold gummed foil, 2 reams per roll—can be furnished in sheets. Samples furnished upon request. Box 332, Modern Packaging.

BAG MAKING MACHINES WANTED: I am interested in any kind of machine in any condition for making heat sealed cellophane bags. If you have such machinery, or know of the whereabouts of such machinery, please write J. Gedrich, 175 Clinton Place, Newark 8, N. J.

WANTED: To purchase whole or part interest in a going packaging firm in the metropolitan area, doing military or commercial work. All inquiries held in strictest confidence. Box 341, Modern Packaging.

WANTED: Plastic scrap and rejects in any form. Cellulose Acetate, Butyrate, Polystyrene, Vinyl Polyethylene, etc. We pay top prices for clear, colored and printed scrap in any quantity. Box 319, Modern Packaging.

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a Pound of
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The Country's Largest Manufacturer of FLOCK

CLAREMONT, NEW HAMPSHIRE

MAY 1952



They are probably all tempting to you, and they all have one thing in common — they all have been wrapped by *heat seal methods*.

The economies and advantages of heat seal methods are well known. ARCCO offers paper, film and foil converters, a commercially proven line of specialty heat seal coatings and adhesives. They are available in emulsion, solution, and hot melt types and can generally be applied with your present equipment.

They can be engineered to possess various characteristics to suit your particular requirements. An ARCCO engineer will be happy to work with you. Write for data sheets.

ARCCO 1044-29A — Universal Heat Seal Coatings for Glassine, Paper, Aluminum Foil and Cellulose Acetate. Data Sheet C-66.

ARCCO 1044-31 — Heat Seal Coating for Candy Bar Wraps. Data Sheet C-66.

ARCCO 716-6 — Heat Seal Spot Coating for Waxed Glassine. Data Sheet C-66.

FOILAC 1261-12C — (Clear) Solution Coatings for Metal Foils. Data Sheet C-61-R.

ARCCO 1044-27A — ARCCO 1044-27B — Heat Seal Greaseproof Resin Emulsion Coatings. Data Sheet A-43.

ARWAX 717-46B — Hot Melt — paraffin wax additive for improved heat seal and improved water-vapor resistance. Data Sheet C-71.



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*Modern
packaging*

Published by Modern Packaging Corp.
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and industrial products

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Each month, the Readers' Service Department of MODERN PACKAGING answers scores of questions for our readers. Questions range from simple requests for information about the manufacture of a can, machine or box to requests which demand detailed, technical answers.

With their extensive files, reference library and wide knowledge of packaging materials, machinery and procedures, the members of the Readers' Service Department can usually supply the information you request. In addition, the technical and editorial staffs of MODERN PACKAGING are at their disposal for attending to questions which are particular "sticklers."

If you have any questions, feel free to forward them. There is no charge or obligation for this service. Address—Readers' Service Department, MODERN PACKAGING. A complete reply to your inquiry will be sent promptly.

MODERN PACKAGING

A BRESKIN PUBLICATION

575 Madison Avenue New York 22, N. Y.

New Monsanto report tells you—

*How to package
low-cost,
popular-priced
items
in Vuepak*



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at a price you can afford for packaging**

A new report to management, just published by Monsanto, shows how the problem of profitably packaging low-cost items in plastics has been neatly solved by literally scores of manufacturers. Many use sparkling, show-all boxes made of Vuepak — Monsanto's rigid, transparent cellulose acetate packaging material.

This is profitable packaging. Experience shows that products packaged in boxes of Vuepak often outsell companion merchandise packaged "blind" by as much as six to one. Increased sales naturally mean lower packaging costs per unit.

In addition, packages of Vuepak cost much less than you might think. Both custom and stock boxes can be inexpensively fabricated on fast, automatic machines. Your box supplier will be happy to talk over plastics packages with you. Or, contact Monsanto for up-to-date information on packaging for profit in plastics and the new management report on packaging in plastics. The coupon is for your convenience. Vuepak® Reg. U.S. Pat. Off.



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- MONSANTO CHEMICAL COMPANY, Plastics Division,
Room 4110, Springfield 2, Mass.
- Please send me your report to management on how to package
in plastics.
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- Company _____
- Address _____
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**Michigan can help you
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ing is the advantage we have in over-all quality control, because Michigan cartons are printed on Michigan boxboard . . . boxboard that is engineered for finer printed results.

Let Michigan put your product on the package to give your cartons greater sales appeal.

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A complete packaging service is available from your Shellmar
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fabrication can be of great help to you. Give him a call or write direct.

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